SOIL ATLAS

CUDDALORE DISTRICT

SOIL SURVEY & LAND USE ORGANISATION
(Department of Agriculture, Tamil Nadu)
Coimbatore - 641 013

2005

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(DEPARTMENT OF AGRICULTURE, TAMIL NADU)
COIMBATORE - 641 013

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FOREWORD

Soil Survey and Land Use Organization of this Department have completed the reconnaissance soil survey of Tamilnadu using small scale maps at taluk level. These maps are useful in land use planning at regional level and to identify the soil borne potentials and constraints.

With a view to translate the soil survey data for better understanding and practical use, attempts were made to prepare and document the District Soil Atlas. Information generated by the Soil Testing and Mobile Soil Testing Laboratories have also been included in respect of soil fertility status. In a phased manner these atlases were got printed for 7 districts in 1997-98 and 16 districts in the year 1998 - 99.

In 2004 - 05, printing of Soil Atlas for 5 districts namely Thoothukudi, Virudhunagar, Cuddalore, Villupuram and Thiruvannamalai has been taken up at a cost of Rs. 4.8 lakhs. With this, the Department has complied Soil Atlas for all the districts in Tamil Nadu except Chennai.

In the Atlas, information has been arranged in 3 tiers. In the first tier vital information has been provided at the District level. In the second tier soil and their vital interpretation are provided at Taluk level. Lastly, fertility status is provided at Village level.

I am proud to state that this Department was the first to develop such Atlas in the whole of Country and therefore congratulate all those who have contributed for the preparation of Atlas. I am sure that the Atlas will be of immense use for all those who are concerned with land use planning.

(Jagmohan Singh Raju)

CONTENTS

ABOUT THE SOIL ATLAS

Agriculture plays a vital role in the Indian economy and provides occupation to about 70% of the population which in turn depends on several inputs applied on soil. As such soil forms the basic non-renewable natural resource, its health and productivity on a sustained basis have to be maintained for sound production systems. All inputs in the production system can be functional only when there is soil/land, which is qualitatively suitable for such purpose.

In this context, Soil Survey forms the basic tool for agricultural development programmes and provides information on characteristics and location of the different kinds of soils and their management potentials as well as their limitations for different purposes. Keeping this in view a data base on soils of the district have been developed through Reconnaissance Soil Survey and this could be found useful for planning at regional level.

In this Atlas, all the information pertinent to the socio economic condition of the district is provided briefly. Soil characteristics and their interpretations are subsequently presented at district level in small scale. For better understanding, soil information and their interpretations are given separately at taluk level also. Further, dominant kind of soil at village level and fertility status have been provided for developing optimum fertility management programmes.

As soil is highly heterogeneous in nature, differences in soil can occur within short distance and therefore, it is needless to say that Detailed Soil Surveys at higher intensity are necessary for micro level development programmes.

"The wealth of a nation lies in her soils and their intelligent use and management".

- Richard Gordon Moores (1970)

LOCATION

Cuddalore is a coastal district lying in the Coromandal coast of Tamil Nadu and encompasses six taluks divided into 13 panchayat unions.

- **Geocode :**

North latitude	:	11 ° 0'	12 ° 0'
East longitude	:	78 ° 38'	80° 0'

- **Geographical area** : 3677.81 sq km

- **Boundary :**

North	-	Villupuram district and Pondicherry State
East	-	Bay of Bengal
South	-	Nagapattinam and Perambalur districts
West	-	Salem disctrict

- **Agro Ecological Region :**

a) Western part - Eastern Ghats (TN uplands and Decan Plateau, hot semi-arid eco region with red loamy soils and growing period 90 - 150 days.

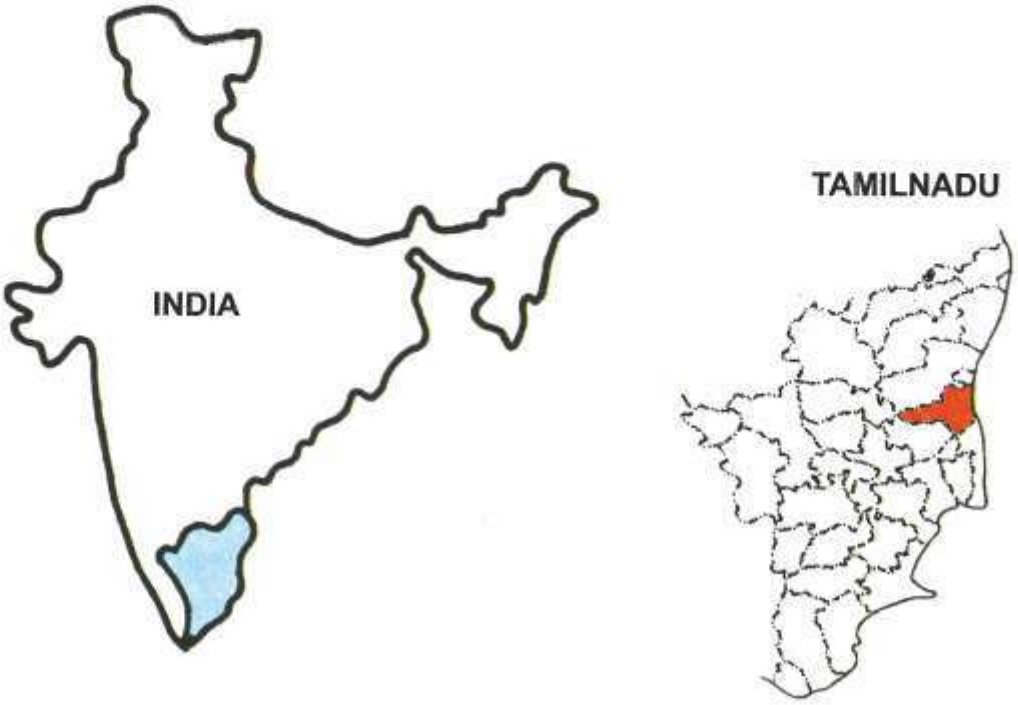
b) Eastern part - Eastern coastal plains hot sub humid eco region with alluvium derived soils and growing period 150 - 210 days.

- **Agro Climatic Zone :**

a) North eastern zone - Taluks of Cuddalore,
- Panrutti, Virudhachalam and Thittakudi.

b) Cauvery delta zone - Chidambaram and Kattumannarkoil.

CUDDALORE DISTRICT
LOCATION

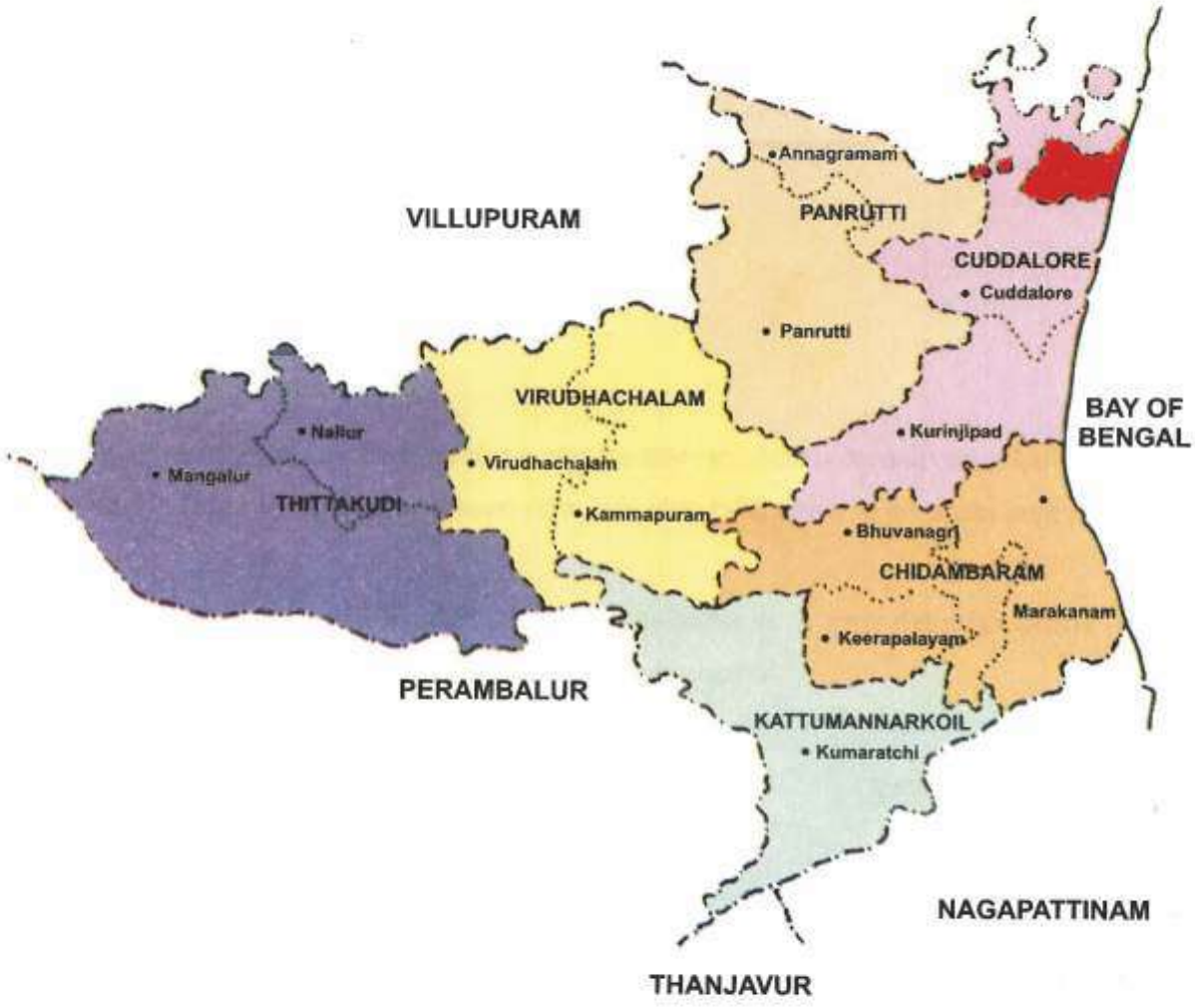


TALUKS AND PANCHAYAT UNIONS

The district consists of 13 panchayat unions as detailed below.

Division	Taluk	Panchayat Union
1. Chidambaram	1. Chidambaram	1. Bhuvanagiri
		2. Keerapalayam
		3. Kumaratchi
		4. Portnovo
	2. Kattumannarkoil	5. Kattumannarkoil
2. Cuddalore	3. Cuddalore	6. Cuddalore
		7. Kurinjipadi
	4. Panrutti	8. Annagramam
		9. Panrutti
3. Vridhachalam	5. Thittakudi	10. Mangalur
		11. Nallur
	6. Virudhachalam	12. Kammapuram
		13. Virudhachalam

TALUKS & PANCHAYAT UNIONS
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- COASTAL BOUNDARY
- PONDICHERRY

LEGEND

- TALUK BOUNDARY
- PANCHAYAT UNION BOUNDARY

ROADS AND RAILWAYS

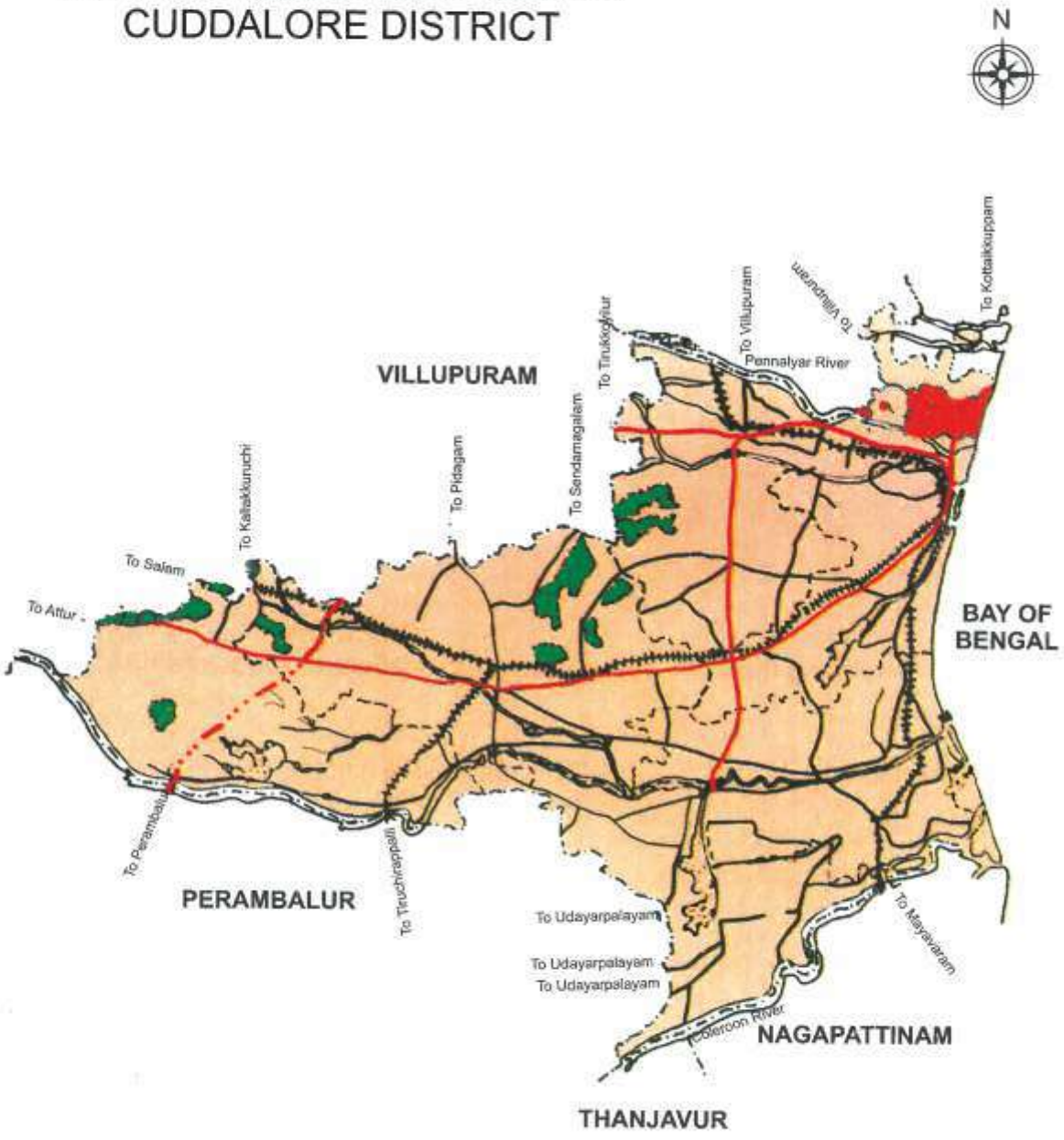
Cuddalore district is well connected with a net work of roads including national high ways, state high ways and railways with nearby districts and state capital.

- **National high way :** It passes through Thittakudi to Perambalur and Villupuram. East coast road is popular.

- **State high way :** It connects near by Villupuram Salem, Perambalur, Thanjavur and Nagapattinam districts.

- **Southern railway :** Cuddalore is connected with Villupuram, Salem, Trichy and Mayavaram through railway.

ROADS AND RAILWAYS
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- PONDICHERRY
- FOREST BOUNDARY

LEGEND

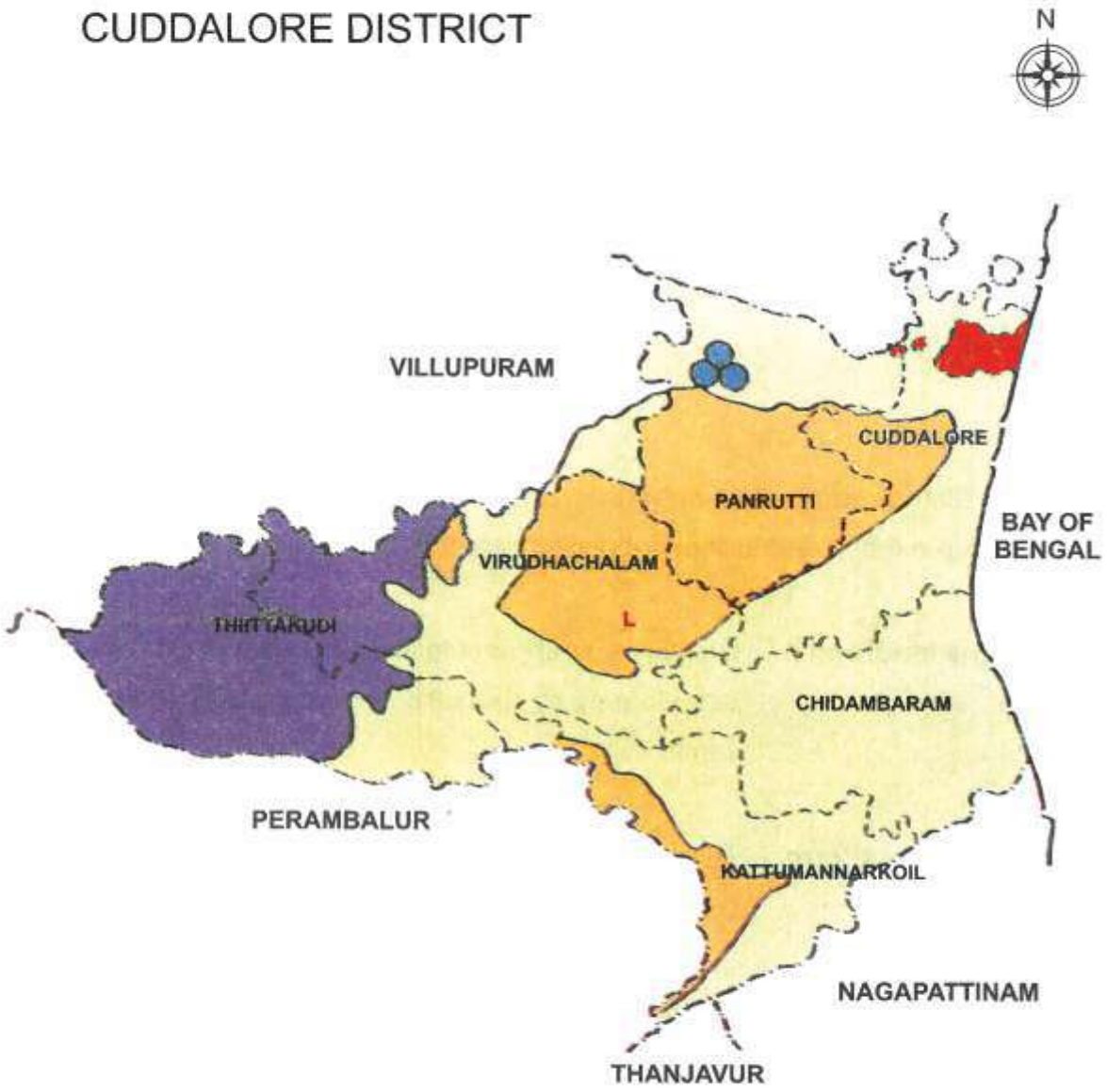
- NATIONAL HIGHWAY
- STATE HIGHWAY
- DISTRICT ROAD
- RAILWAY LINE

GEOLOGY

Alluvium forms the dominant geological formation of Cuddalore district.

- **Alluvium** : Throughout the district.
- **Cuddalore sandstone** : Chidambaram taluk, parts of Cuddalore, Panrutti, Virudhachalam and Kattumannarkoil.
- **Granite gneiss** : Parts of Thittagudi and Virudhachalam taluks.
- Lignite, feldspar, gypsum, mica and limestones are the minerals reported in the district.

GEOLOGY
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- PONDICHERRY

LEGEND

- ALLUVIUM RECENT
- CUDDALORE SANDSTONE - MIOCENEPLIOCEOUS
- GRANITE GNEISS (PENINSULAR GNEISS)
- CLAY
- L LIGNITE

PHYSIOGRAPHY

The district can be described as coastal plains, physiographically, with elevation upto 400 ft and further subdivided into four landforms as given below :

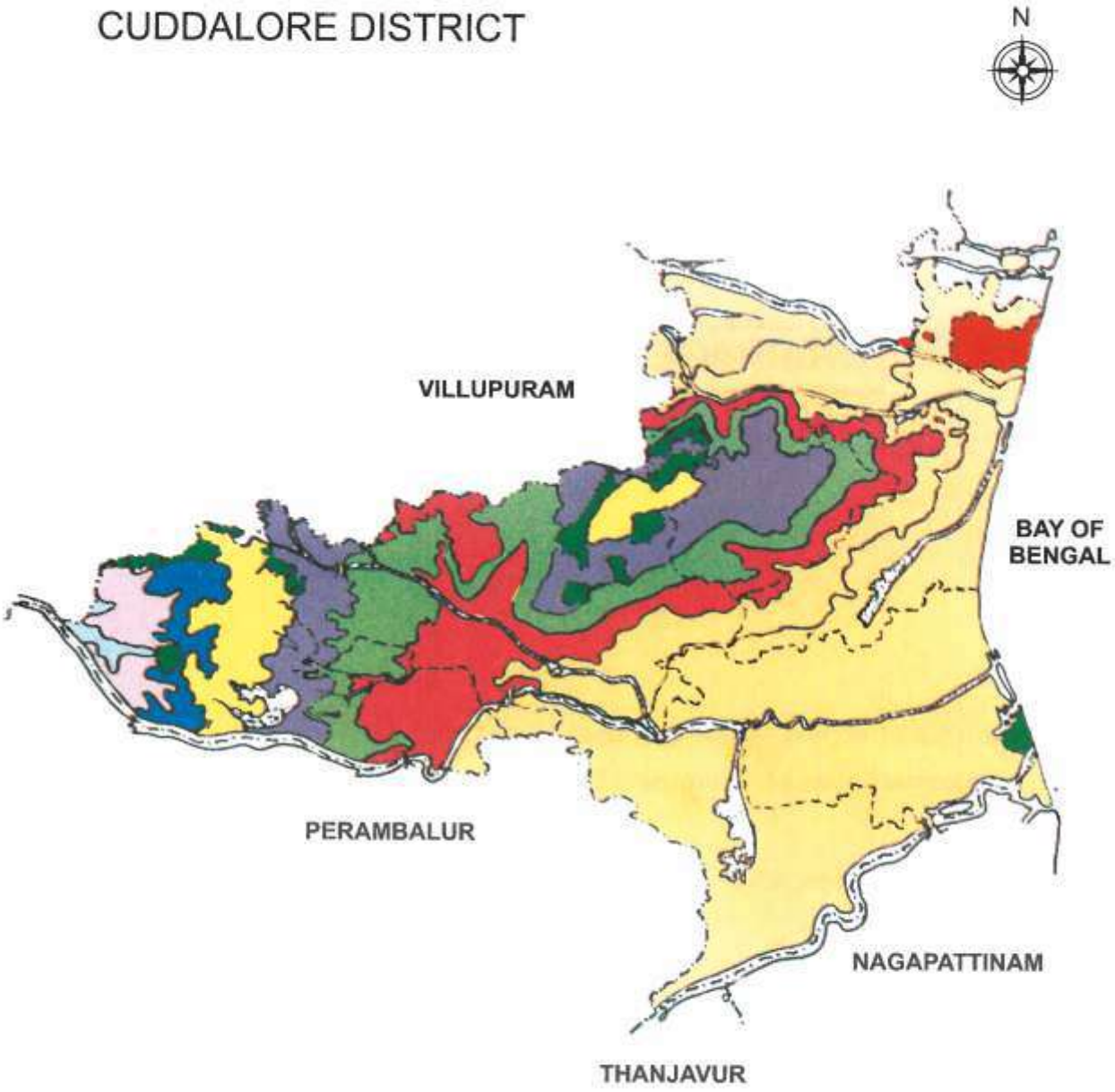
- **Marine landform :** Occurs as a narrow strip along the east coast. This has been formed by coastal action and mostly covered by sands.

- **Riverain landform :** This is influenced by the deposition of alluvial materials by the Ponnaiyar, especially in the southern part.

- **Laterite landform :** A larger part in the northern portion of the district and a smaller part in north west are covered by laterite landform. The underlying rock is Cuddalore sandstone.

- **Inland plain :** The western part is occupied by inland plains.

PHYSIOGRAPHY
CUDDALORE DISTRICT



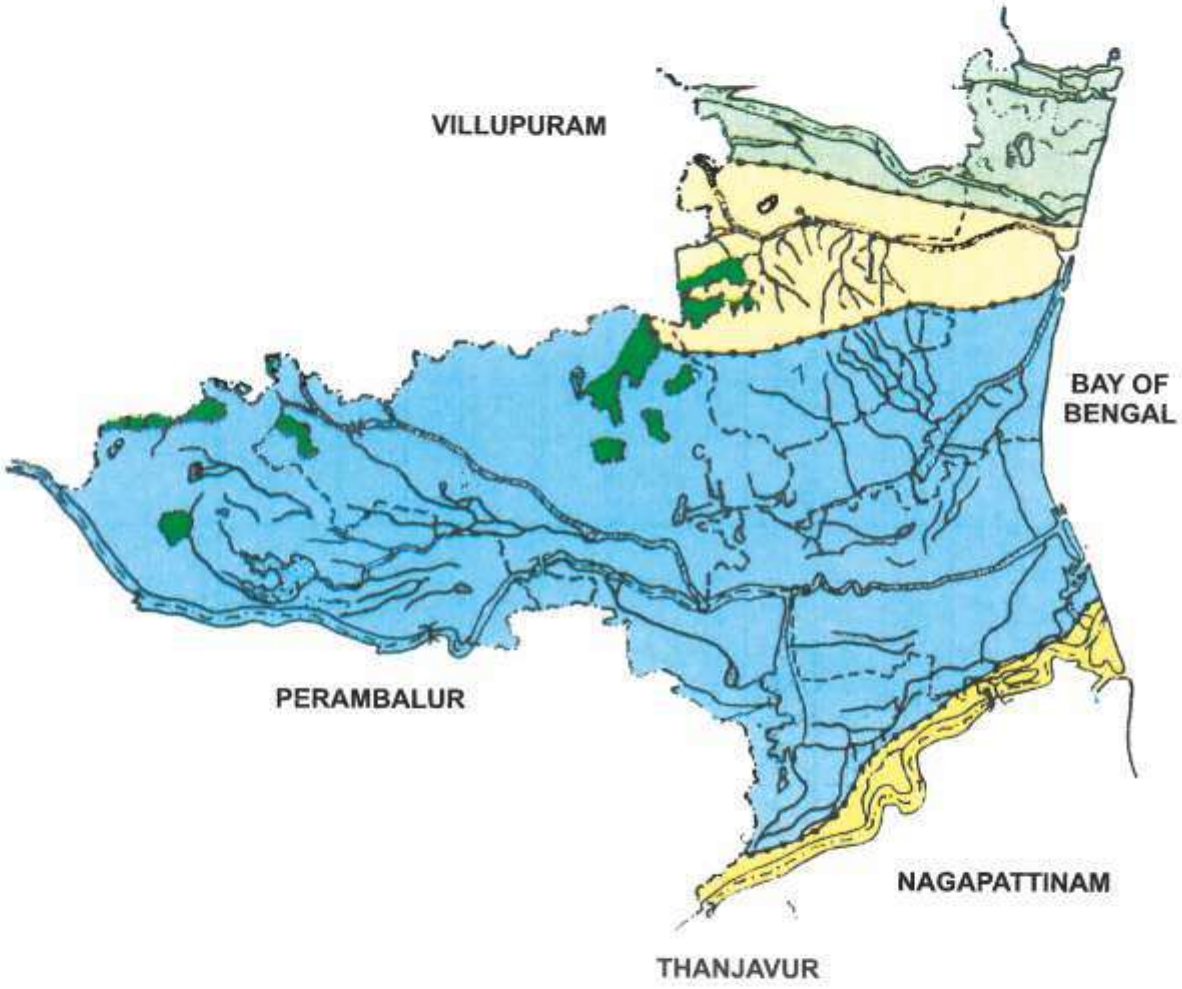
DRAINAGE AND RIVER BASINS

- The district comes under four river basins and the Vellar river basin is the predominant river basin covering the major part of the district.

- Parts of Cuddalore and Panrutti taluks are benefitted by Gadilam and Pennaiya river basins also.

- Cauvery river basin covers Kattumannarkoil and Chidambaram taluks as a narrow stretch.

RIVER BASINS
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- FOREST BOUNDARY

LEGEND

- VELLAR RIVER BASIN
- GADILAM RIVER BASIN
- PENNAIYAR RIVER BASIN
- CAUVERY RIVER BASIN
- RIVER BASIN BOUNDARY

RAINFALL

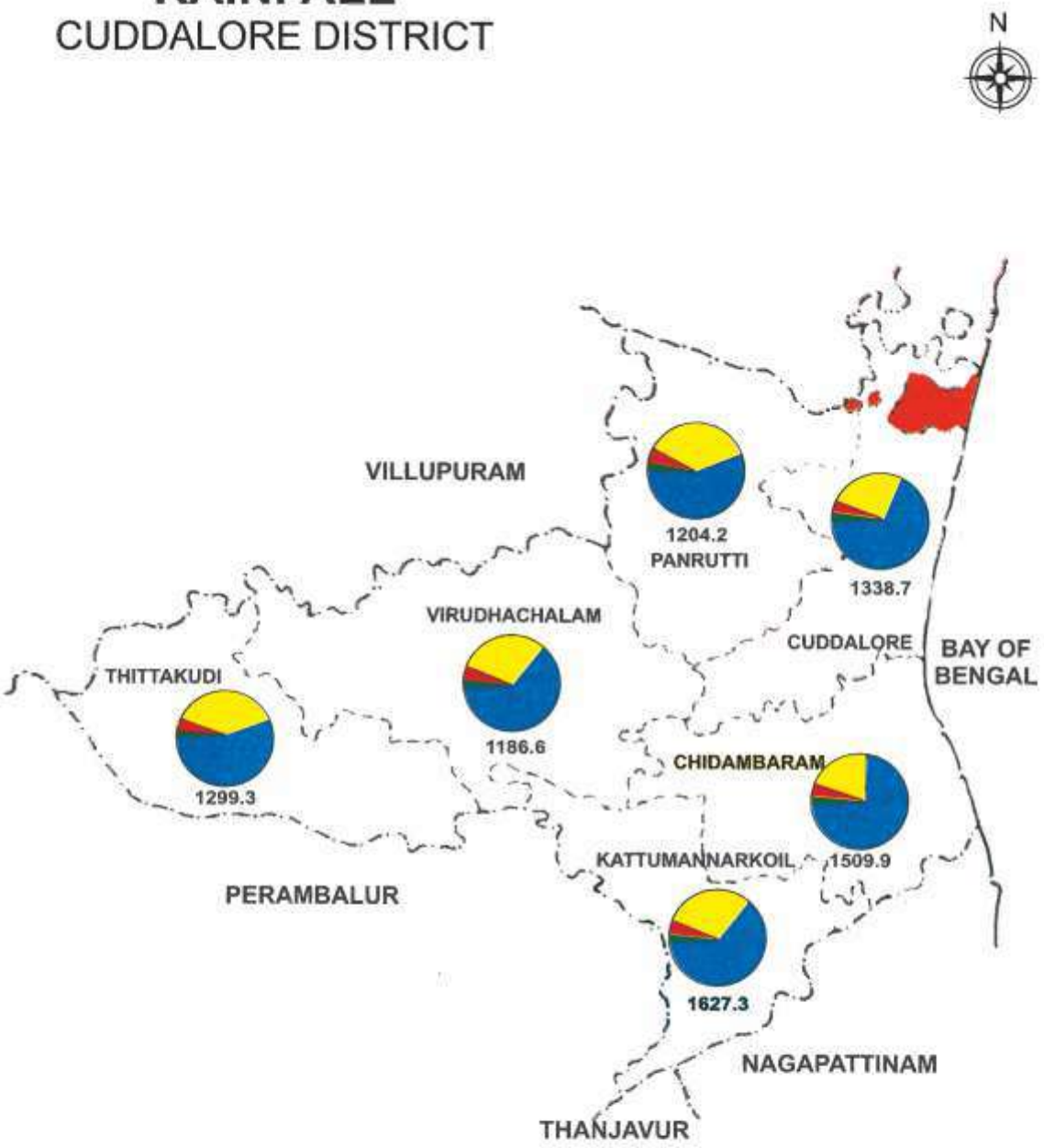
Mean of 1994-2003 in mm

Month	Chidambaram	Cuddalore	Kattumannar Koil	Panrutti	Thittakudi	Virudhachalam	District Mean
January	18.1	19.3	14.6	7.0	3.5	2.7	10.87
February	80.4	21.1	64.8	21.1	24.7	20.2	43.18
March	4.5	1.7	2.6	0.4	4.0	0.6	1.80
April	14.1	23.4	35.4	16.4	20.5	18.9	21.45
May	64.6	48.1	71.4	64.1	107.3	76.0	71.97
June	71.9	69.7	94.8	72.9	65.4	46.0	70.17
July	51.2	69.9	108.7	62.5	100.6	68.3	76.86
August	89.7	90.2	163.5	110.7	142.4	99.7	116.03
September	97.2	112.9	147.4	117.8	182.0	118.8	129.35
October	207.1	213.4	238.2	231.7	262.2	205.8	226.40
November	418.9	334.7	402.5	279.9	281.1	265.2	330.38
December	235.4	227.4	264.3	203.3	195.7	175.5	216.93
TOTAL	1353.0	1258.5	1608.10	1187.8	1389.2	1097.3	1315.33

North east monsoon contributes the maximum rainfall (59%) followed by southwest monsoon (29%)

Kattumannarkoil registers the high of 1608 mm among the taluks and Virudhachalam records the low.

RAINFALL
CUDDALORE DISTRICT



REFERENCE

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- DISTRICT BOUNDARY
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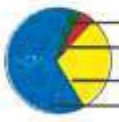
- COASTAL BOUNDARY

LEGEND



- WINTER
- SUMMER
- SOUTH WEST MANSOON
- NORTH EAST MANSOON

1627.3mm ANNUAL RAINFALL

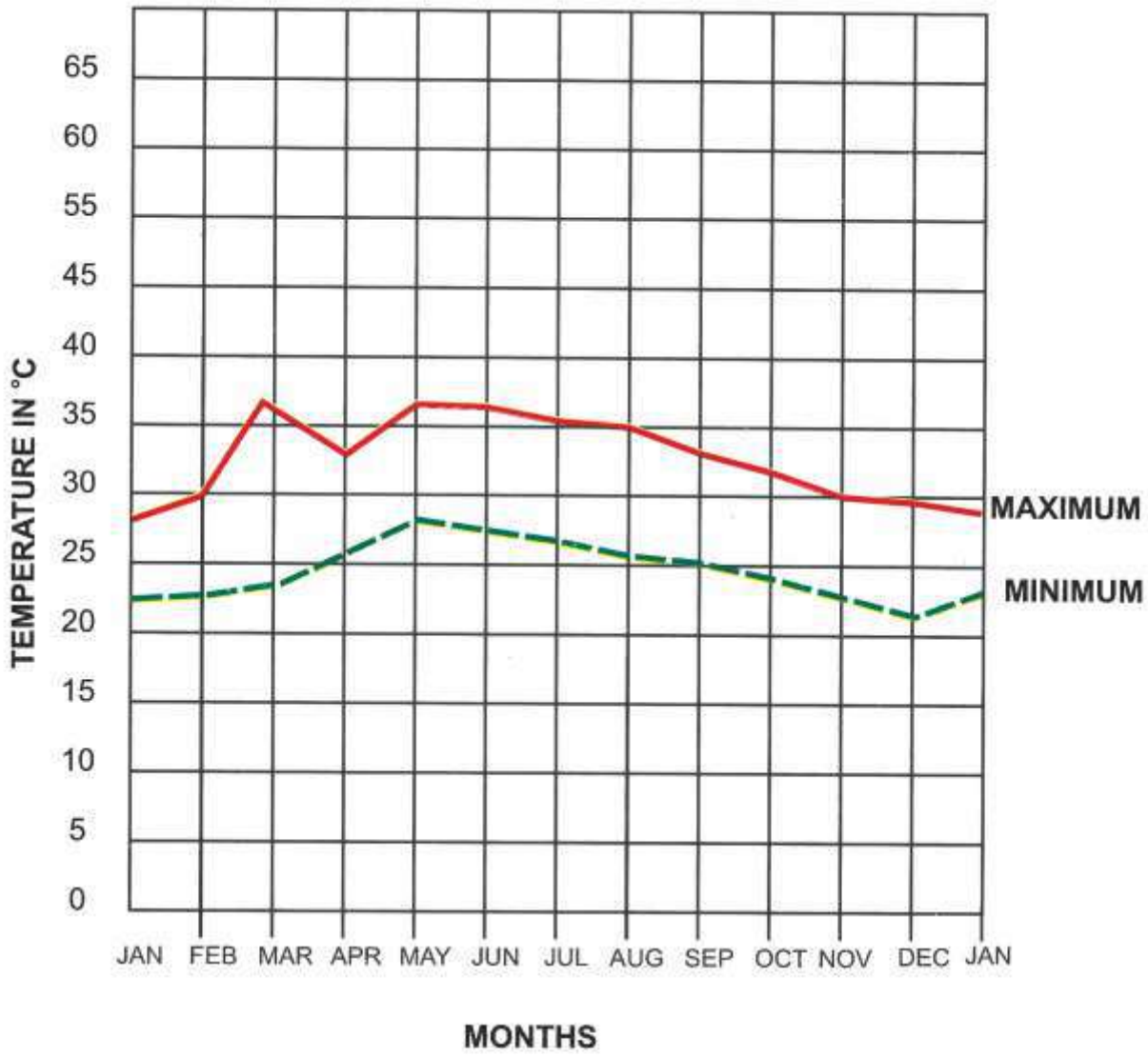
TEMPERATURE

The hot weather period starts from March and ends in July with a mean temperature of > 30°C.

The mean temperature, ranging from 25°C to 26°C , is low during cooler months. The temperature regime is found to be isohypertermic.

Month	Maximum Temperature	Minimum Temperature	Mean Temperature
1. January	27.2	22.5	24.9
2. February	29.8	22.7	26.3
3. March	37.2	23.1	30.1
4. April	33.2	24.2	28.7
5. May	37.1	27.5	32.3
6. June	37.2	27.3	32.4
7. July	35.5	27.0	31.3
8. Augut	35.0	26.0	30.5
9. September	33.5	25.0	29.3
10. October	32.8	24.5	28.7
11. November	30.4	25.5	28.0
12. December	29.5	22.8	26.2
Mean	33.2	24.9	29.1

TEMPERATURE
CUDDALORE DISTRICT



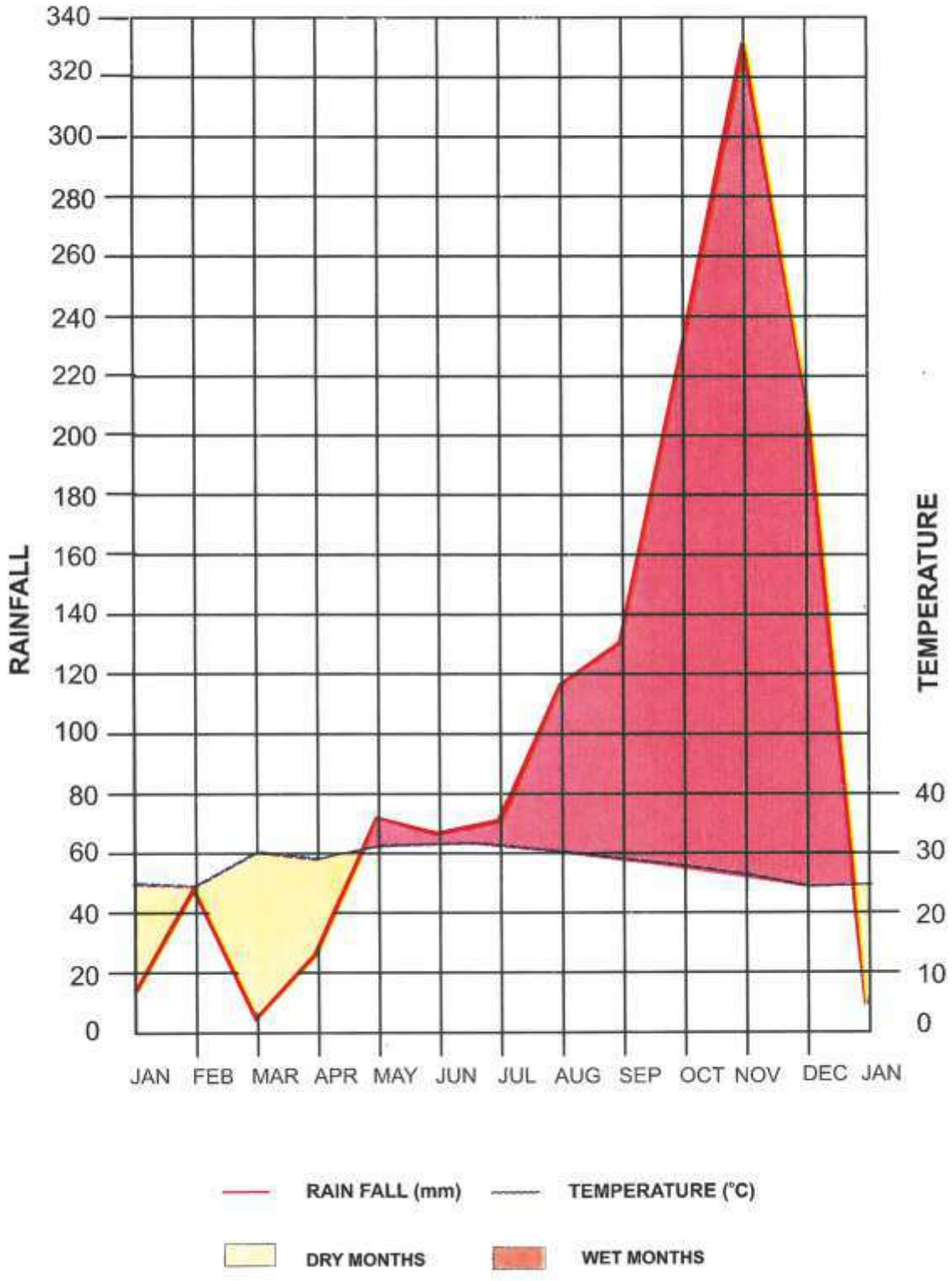
OMBROTHERMIC DIAGRAM

Month	Mean annual Rainfall (mm)	Mean annual Temperature (°C)
1. January	10.87	24.90
2. February	43.18	26.30
3. March	1.80	30.10
4. April	21.45	28.70
5. May	71.97	32.30
6. June	70.17	32.40
7. July	76.86	31.30
8. Augut	116.03	30.50
9. September	129.35	29.30
10. October	226.40	28.70
11. November	330.38	28.00
12. December	216.93	26.20

The wet period starts from mid April to mid December and lasts nearly for 9 months which is amenable for crop cultivation successfully. The soil moisture regime appears to be ustic.

OMBROTHERMIC DIAGRAM

CUDDALORE DISTRICT



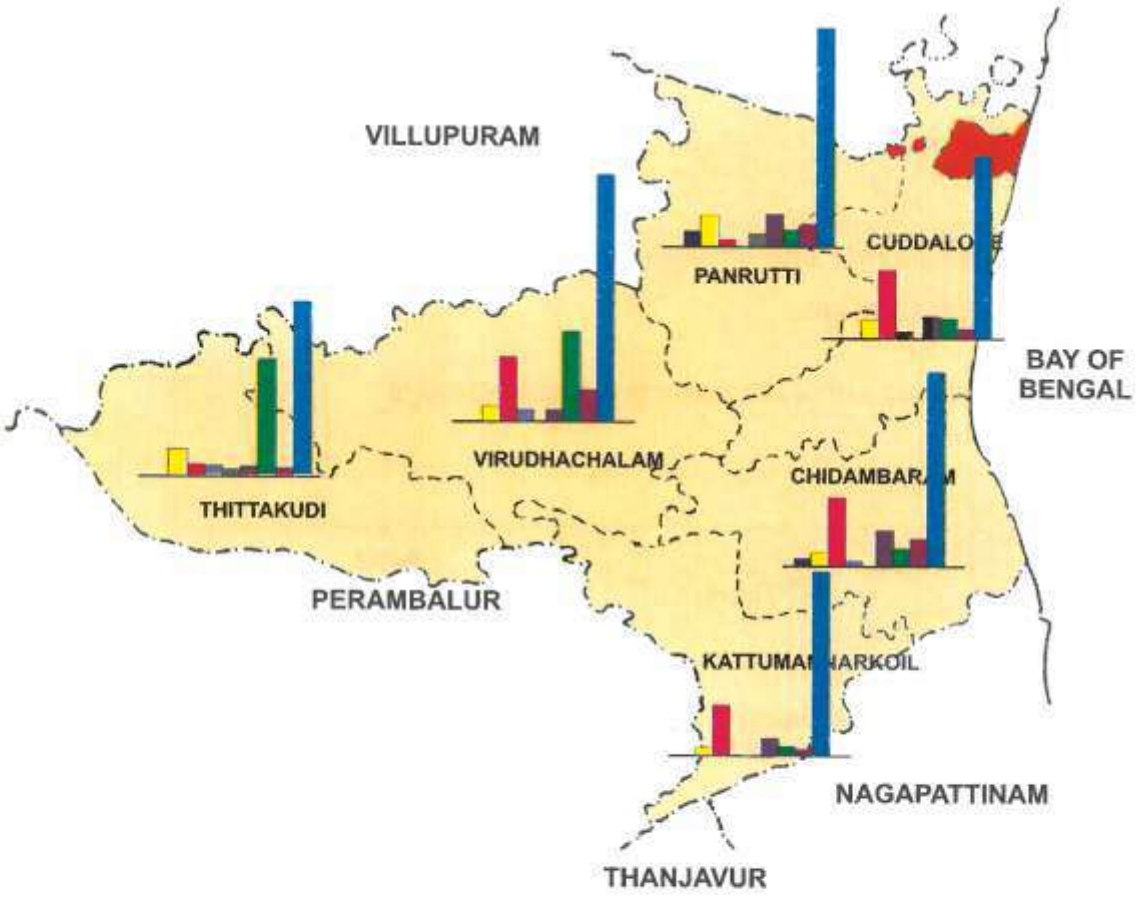
LAND USE, 2002 - 03

Area in hectares

Particulars	Chidambaram	Cuddalore	Kattumannar Koil	Panrutti	Thittakudi	Virudhachalam	Total
1. Forest	70	—	—	1182	1	162	1415
2. Barren and uncultivable lands	2203	2282	2203	2008	3745	3131	14,647
3. Land put to non-agricultural use	11,008	11,260	8223	5,706	2,292	12,096	50,585
4. Cultivable waste	714	1,097	365	605	1,703	2,390	6,874
5. Permanent pastures & grazing lands	177	28	177	10	229	235	709
6. Miscellaneous tree crops & groves	6,546	4,028	3,105	1,913	1,477	1,686	18,755
7. Current fallows	3,777	3,995	2,323	2,453	20,355	15,051	47,954
8. Other fallows	4,094	2,312	1,505	1,699	1,615	3,985	15,210
9. Net area sown	37,385	31,645	30,322	40,501	28,270	43,511	2,11,632
Total geographical area	64,882	56,645	48,223	56,097	59,687	82,247	3,67,781

The forest wealth is low and the area under cultivation is above 60%

LAND USE PATTERN
CUDDALORE DISTRICT



LEGEND

- FOREST
- BARREN & UNCULTIVABLE LAND
- LAND PUT TO NON-AGRICULTURAL USE
- CULTIVABLE WASTE
- PERMANENT PASTURES & GRAZING LANDS
- MISCELLANEOUS TREE CROPS & GROVES
- CURRENT FALLOWS
- OTHER FALLOWS
- NET AREA SOWN

REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY

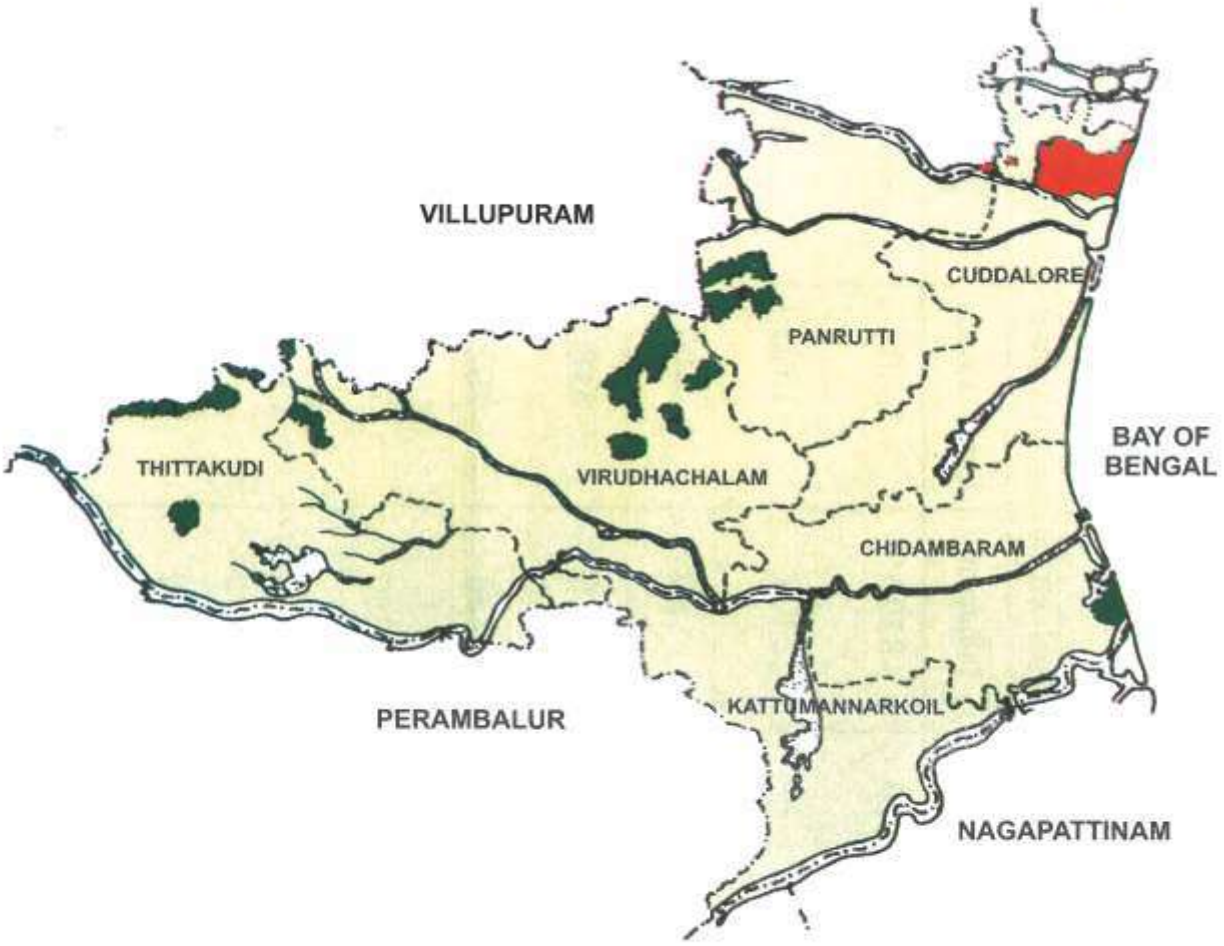
FORESTS

- The total forest area of the district is 1415 ha which accounts for 0.38% of the geographical area.
- The forests are of tropical moist deciduous type.

Taluk	Area	
	ha	%
Cuddalore	-	-
Panrutti	1182	83.5
Chidambaram	70	4.9
Kattumannarkoil	-	-
Virudhachalam	162	11.4
Thittakudi	1	0.2
Total	1415	100

- The Cuddalore, Kattumannarkoil and Thittakudi taluks are devoid of forests.

FORESTS
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- PONDICHERRY
- WATER BODY

LEGEND

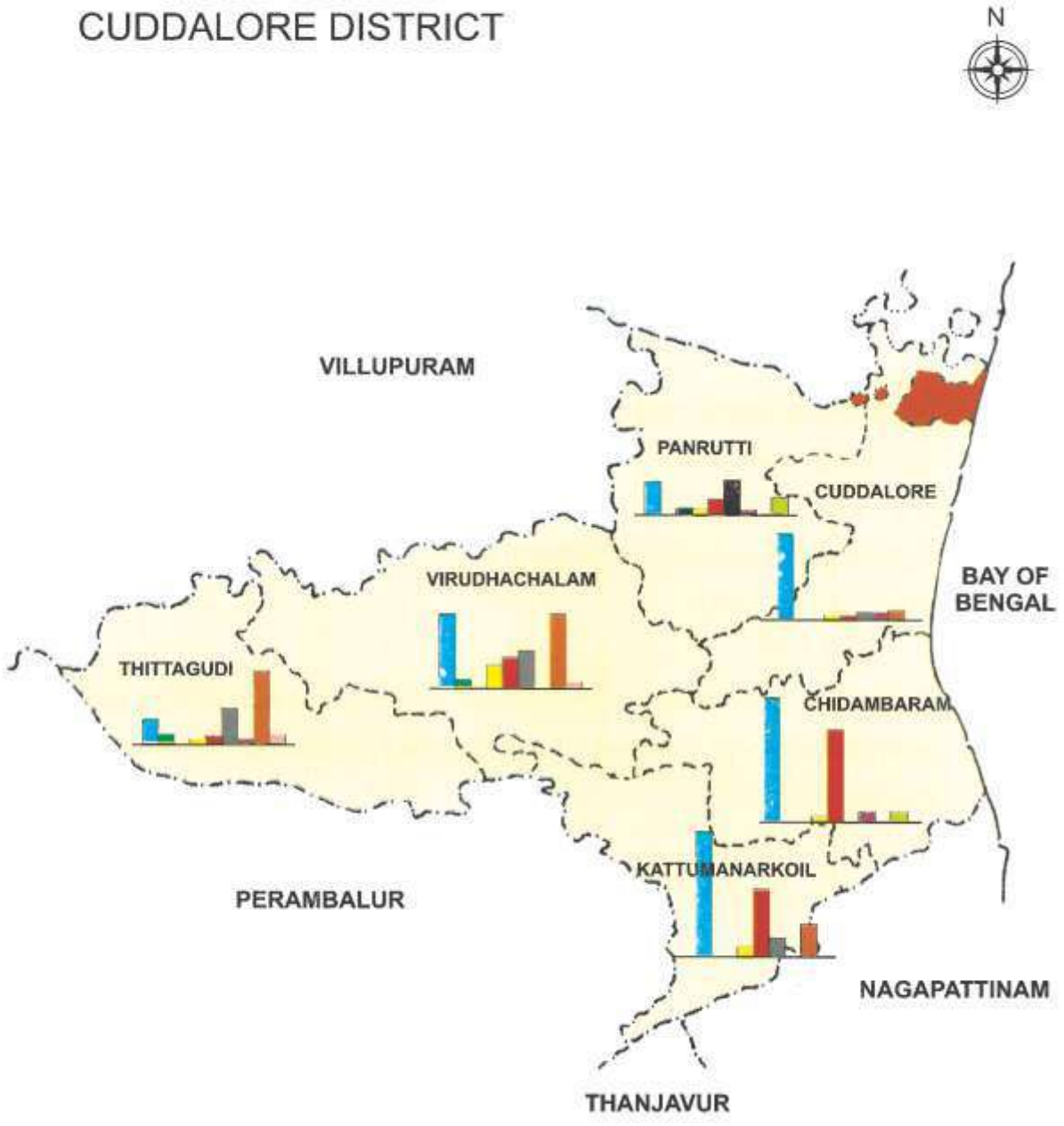
- FOREST BOUNDARY

CROP AREA

Area (ha) under principal crops are indicated talukwise below.

Crop	Cuddalore	Panrutti	Thittakudi	Virudhachalam	Kattumannar Koil	Chidambaram	Total
Paddy	22300	9350	8300	18600	24500	33950	**117000**
Cholam	—	—	2400	1800	—	—	**4200**
Ragi	200	800	80	400	20	—	**1500**
Cumbu	1350	1900	1350	5180	600	20	**10400**
Pulses	940	4690	2450	7020	16800	24400	**56300**
Sugarcane	3800	9600	8350	7300	3750	2400	**35200**
Cotton	180	800	1000	120	100	100	**2300**
Oil seeds	5350	5050	15580	17320	7650	2650	**53600**
Other millets	—	—	2000	850	—	—	**2850**

CROP AREA
CUDDALORE DISTRICT



CROPPING CALENDAR

- Paddy is dominant crop raised in all the four seasons of kuruvai, samba, navarai and sornavari.

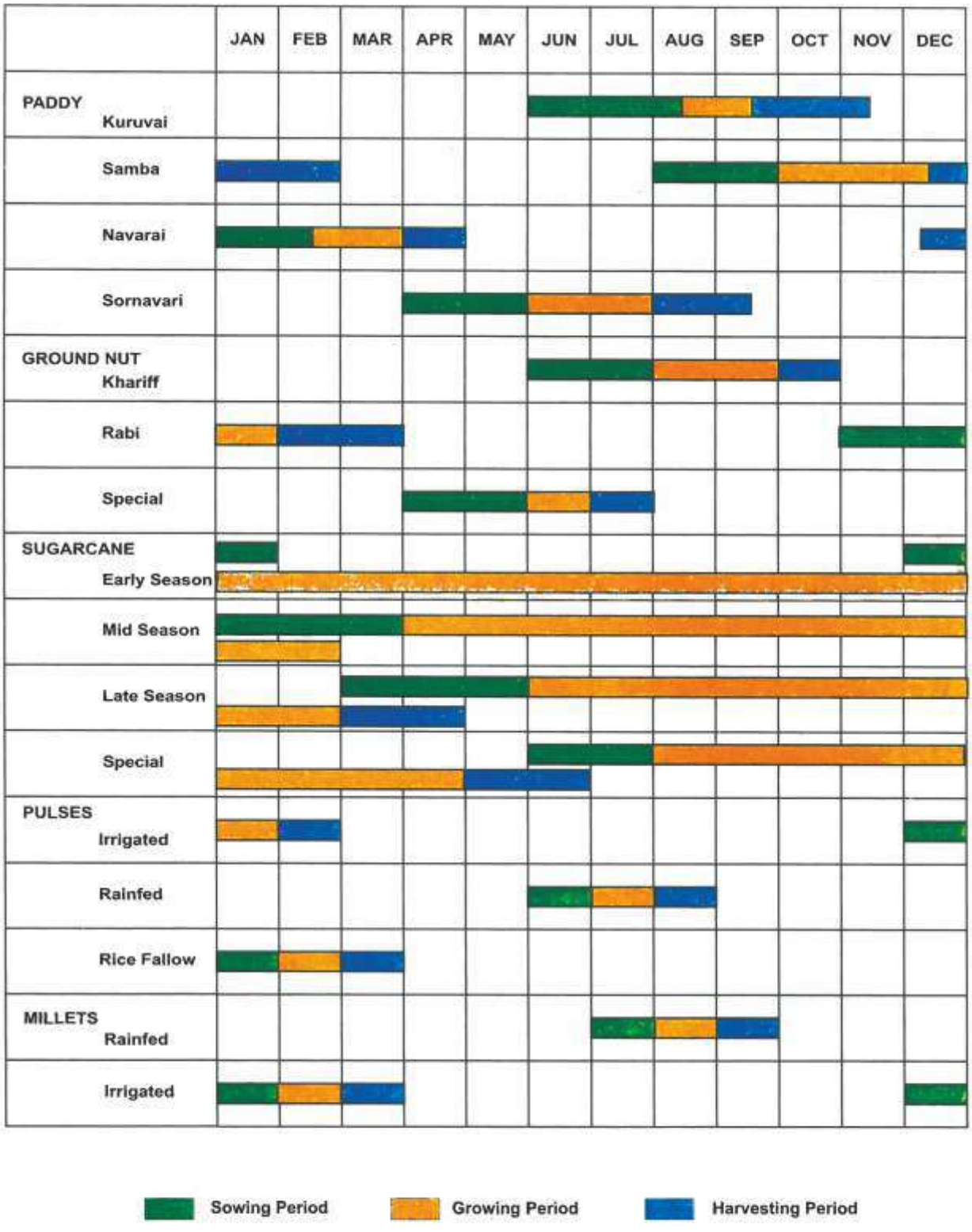
- Pulses are raised both rainfed and irrigated conditions. Pulses are grown in rice fallows also.

- Sugarcane is cultivated in all the three major seasons, namely early, mid and late seasons. Besides, planting is takenup during June & July as a special season.

- Sowing seasons for the major crops are as follows.

1.	Rice	-	Kuruvai, samba, navarai, sornavari
2.	Groundnut	-	Khariff, rabi
3.	Sugarcane	-	Early, mid, late
4.	Pulses	-	Dec-Feb, June-Aug
5.	Millets	-	Dec-Mar

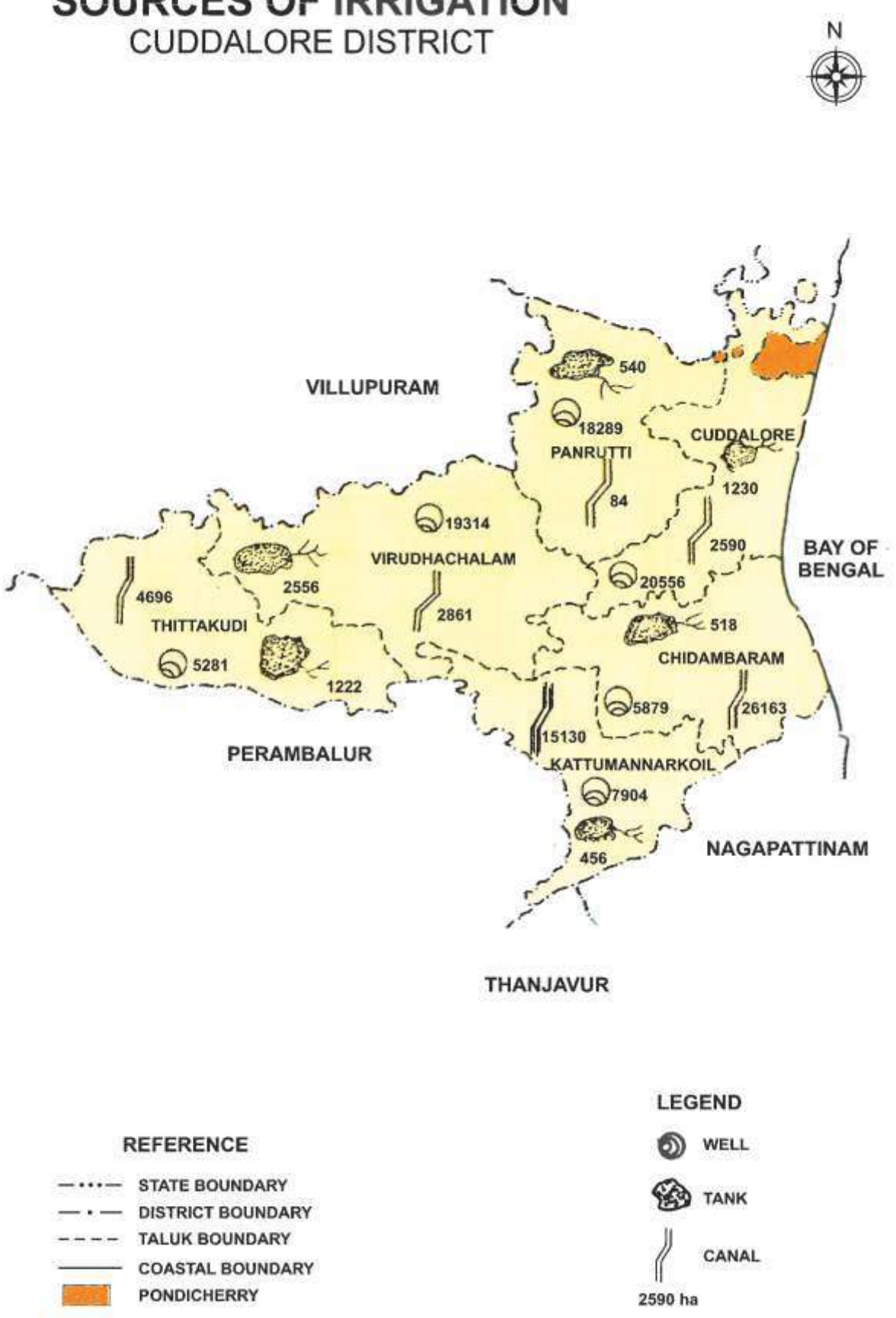
CROPPING CALENDAR
CUDDALORE DISTRICT



SOURCES OF IRRIGATION, 1998-99

Block	Canal		Wells	Tube Wells	Reservoirs	Tank (Nos.)
	Number	Length (km)				
Cuddalore	23	182	—	5729	—	68
Annagramam	2	70	—	4370	—	18
Panrutti	1	105	—	2662	—	16
Kurinjipadi	—	—	—	2291	—	34
Kumaratchi	57	138	220	1721	1	1
Keerapalayam	50	124	97	1690	—	1
Bhuvanagiri	35	92	15	2368	—	2
Parangipettai	36	91	13	516	—	4
Kattumannarkoil	49	121	282	1749	—	17
Nallur	6	71	2999	1978	—	155
Mangalur	1	13	3471	1424	1	51
Kammapuram	8	41	887	2699	—	36
Virudhachalam	2	10	3569	2126	—	189

SOURCES OF IRRIGATION
CUDDALORE DISTRICT

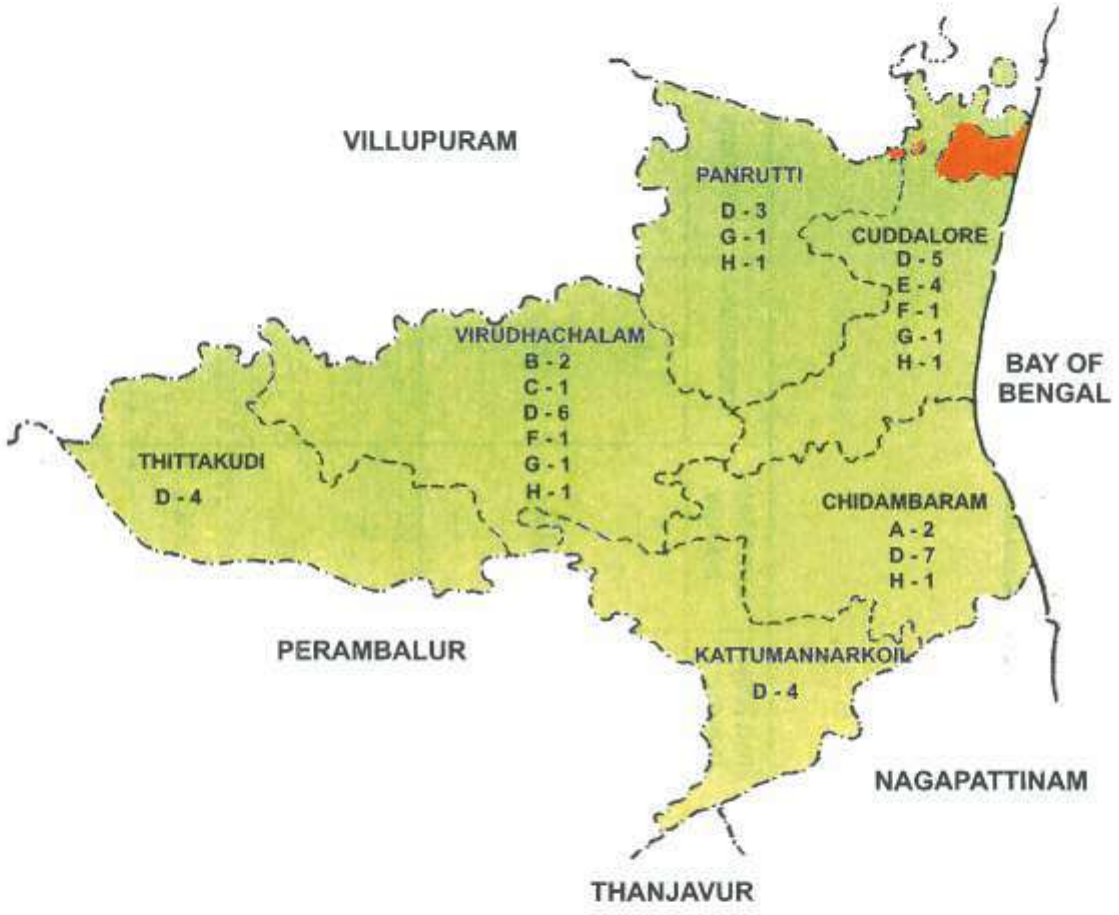


AGRICULTURAL INSTITUTIONS

Particulars	State Seed Farm	Horticulture Farm	Oil Seeds Farm	Agrl. Extension Centre	Agriculture Laboratory	Parasite Breeding Centre	Plant Clinic	Uzhavar Sandai
1. Chidambaram	2	—	—	7	—	—	—	1
2. Cuddalore	—	—	—	5	3*	1	1	1
3. Kattumannarkoil	—	—	—	4	—	—	—	—
4. Panrutti	—	—	—	3	—	—	1	1
5. Thittakudi	—	—	—	4	—	—	—	—
6. Virudhachalam	—	2	1	6	—	1	1	1
TOTAL	**2**	**2**	**1**	**29**	**3**	**2**	**3**	**4**

* 1. Soil Testing Laboratory 2. Pesticides Testing Laboratory 3. Bio Fertilisers Production Unit

AGRICULTURAL INSTITUTIONS
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- PONDICHERRY

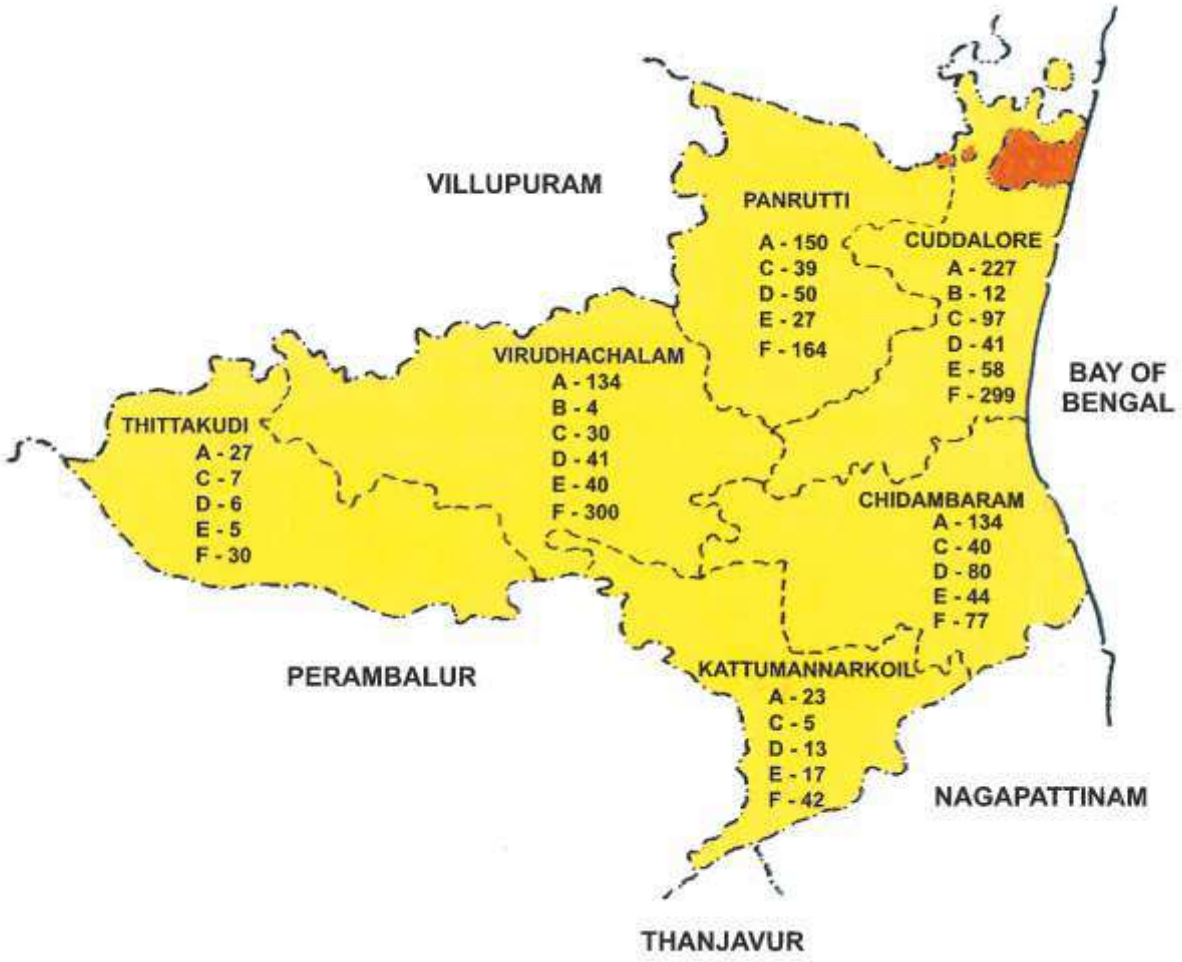
LEGEND

A	STATE SEED FARM
B	HORTICULTURE FARM
C	OIL SEEDS FARM
D	AGRICULTURAL EXTENSION CENTRE
E	AGRICULTURAL LABORATORY
F	PARASITE BREEDING CENTRE
H	UZHAVAR SANDAI

AGRO INDUSTRIES

Taluk	Small Scale Industry	Large Scale Industry	Powerloom	Handloom	Handi Craft	Khadi Units
1. Chidambaram	134	—	40	80	44	77
2. Cuddalore	227	12	97	41	58	299
3. Kattumannarkoil	23	—	5	13	17	42
4. Panrutti	150	—	39	50	27	164
5. Thittakudi	27	—	7	6	5	30
6. Virudhachalam	134	4	30	41	40	300
TOTAL	**695**	**16**	**218**	**231**	**191**	**912**

AGRO INDUSTRIES
CUDDALORE DISTRICT



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- PONDICHERRY

LEGEND

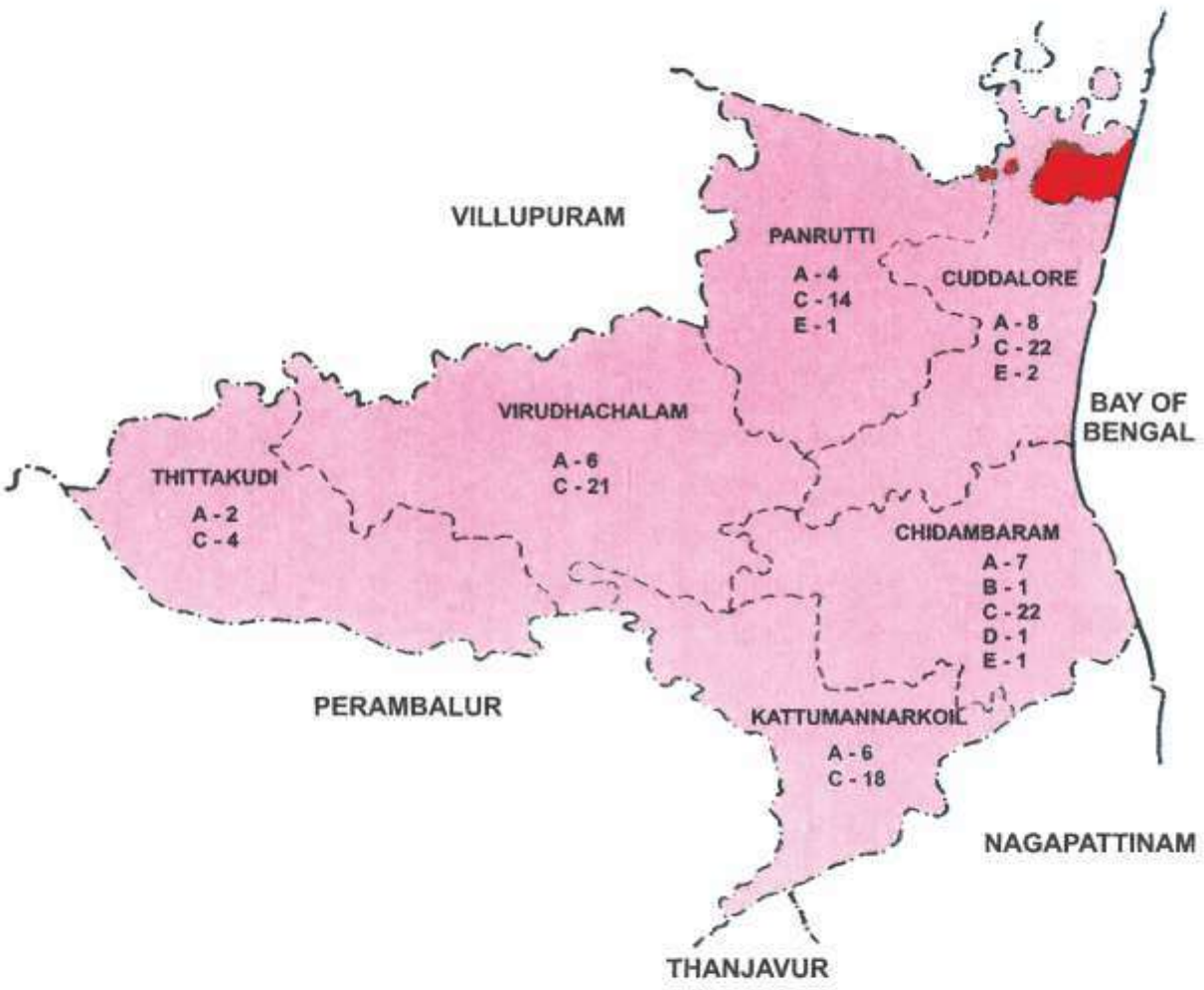
A	SMALL SCALE INDUSTRY
B	LARGE SCALE INDUSTRY
C	POWER LOOM
D	HAND LOOM
E	HANDI CRAFT
F	KHADI UNITS

ANIMAL HUSBANDRY INSTITUTIONS

Taluk	Veterinary Hospital	Mobile Unit	Artificial Insemination Centre	Poultry Centre	Slaughter House
1. Chidambaram	7	1	22	1	1
2. Cuddalore	8	—	22	—	2
3. Kattumannarkoil	6	—	18	—	—
4. Panrutti	4	—	14	—	1
5. Thittakudi	2	—	4	—	—
6. Virudhachalam	6	—	21	—	—
TOTAL	**33**	**1**	**101**	**1**	**4**

ANIMAL HUSBANDRY INSTITUTIONS

CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- PONDICHERRY

LEGEND

A	VETERINARY HOSPITAL
B	MOBILE UNIT
C	ARTIFICIAL INSEMINATION CENTRE
D	POULTRY CENTRE
E	SLAUGHTER HOUSE

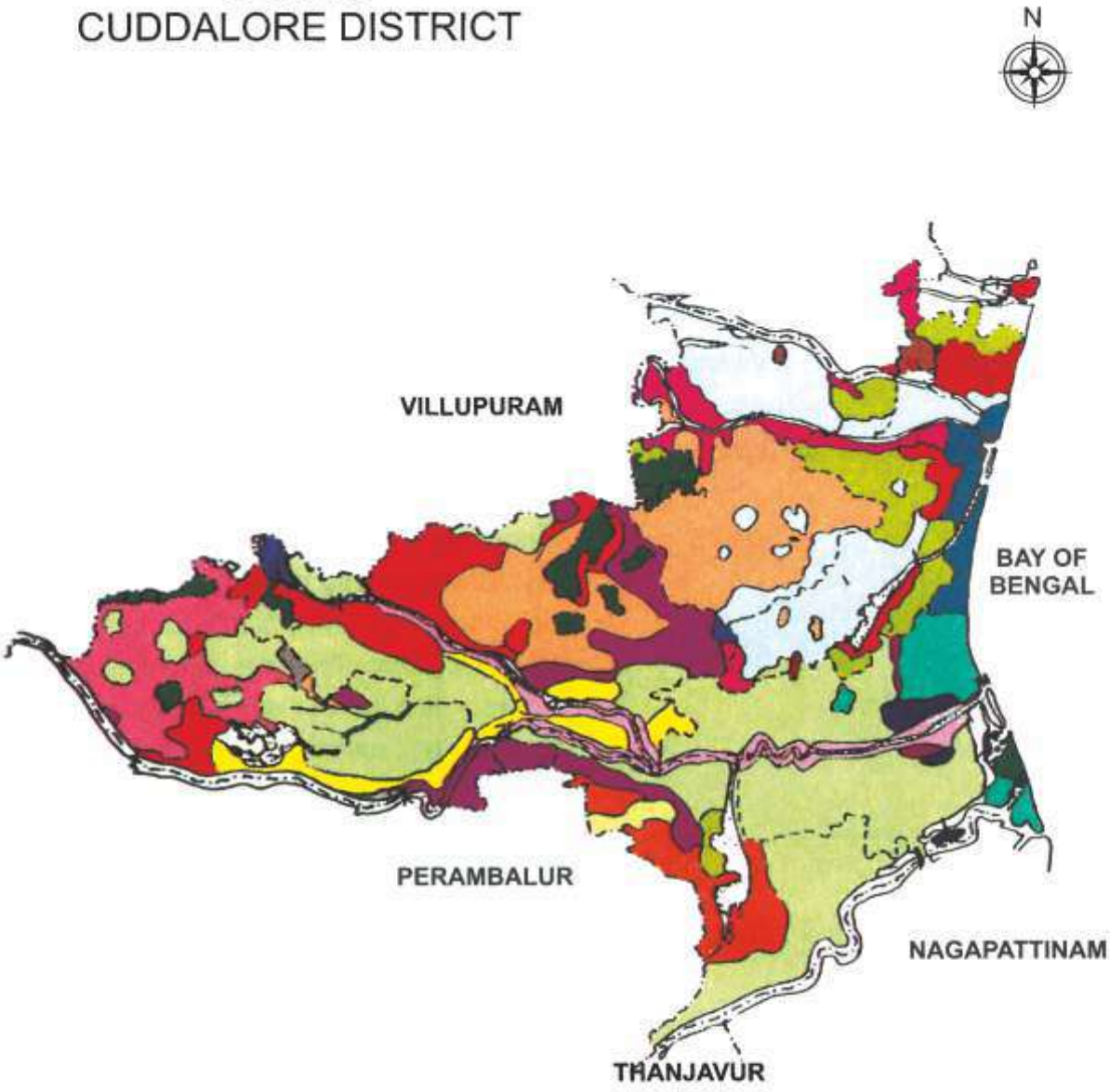
SOILS

Soils were identified and mapped at "Soil Series" level, which include soils similar in major diagnostic characteristics developed from similar kind of parent material. Soil association include two such soil series occuring at shorter intervals changing their boundary frequently. Soil series were classified according to Soil Taxonomy; all the twenty soil series occuring in the district fall within 4 orders namely Entisols, Inceptisols, Alfisols and Vertisols.

Soil Order		Soil Series	Symbol	** Extent (ha)	%
ENTISOLS	1.	Padugai	Pgd	15959	4.34
	2.	Valuthalakudi	Vld	9657	2.63
	3.	Pachol	Pcl	1341	0.37
	4.	Mahabalipuram	Mbm	Occur as association	
INCEPTISOLS	5.	Arasanatham	Anm	25988	7.07
	6.	Lalapettai	Lpi	21562	5.87
	7.	Pulavanur	Plr	16410	4.46
	8.	Mangadu	Mgd	8447	2.30
	9.	Adanur	Adn	7203	1.97
	10.	Tiruvengadu	Tvg	887	0.24
	11.	Uchimedu	Ucm	166	—
ALFISOLS	12.	Vadalapakkam	Vdm	50376	10.70
	13.	Vadapudupet	Vdp	35468	9.65
	14.	Madukkur	Mdk	17620	4.79
	15.	Pattukottai	Pkt	12876	3.50
	16.	Vanur	Vnr	7955	2.16
	17.	Vallam	Vlm	1693	0.46
	18.	Vadathesasalur	Vts	606	0.16
VERTISOLS	19.	Kondal	Knd	95941	26.09
	20.	Ammapettai	Amp	6154	1.67
Water Bodies etc.				31472	8.57
		TOTAL		**3,67,781**	**100**

** Area of associated soils are included in the respective major soil series.

SOILS
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- FOREST BOUNDARY
- PONDICHERRY
- WATER BODY

LEGEND

- VADALAPAKKAM
- VADAPUDUPET
- PULAVANUR
- AMMAPETTAI
- KONDAL
- ARASANATHAM
- MADUKKUR
- PACHOL
- MANGADU
- UCHIMEDU
- PATTUKOTTAI
- VALLAM
- VALUTHALAKUDI
- TIRUVENGADU
- ADANUR
- LALAPETTAI
- VADATHESASALUR
- SOIL ASSOCIATION

KONDAL SERIES (Knd)

Soil Taxonomy : Fine mixed calcareous isohyperthermic Typic Haplustert

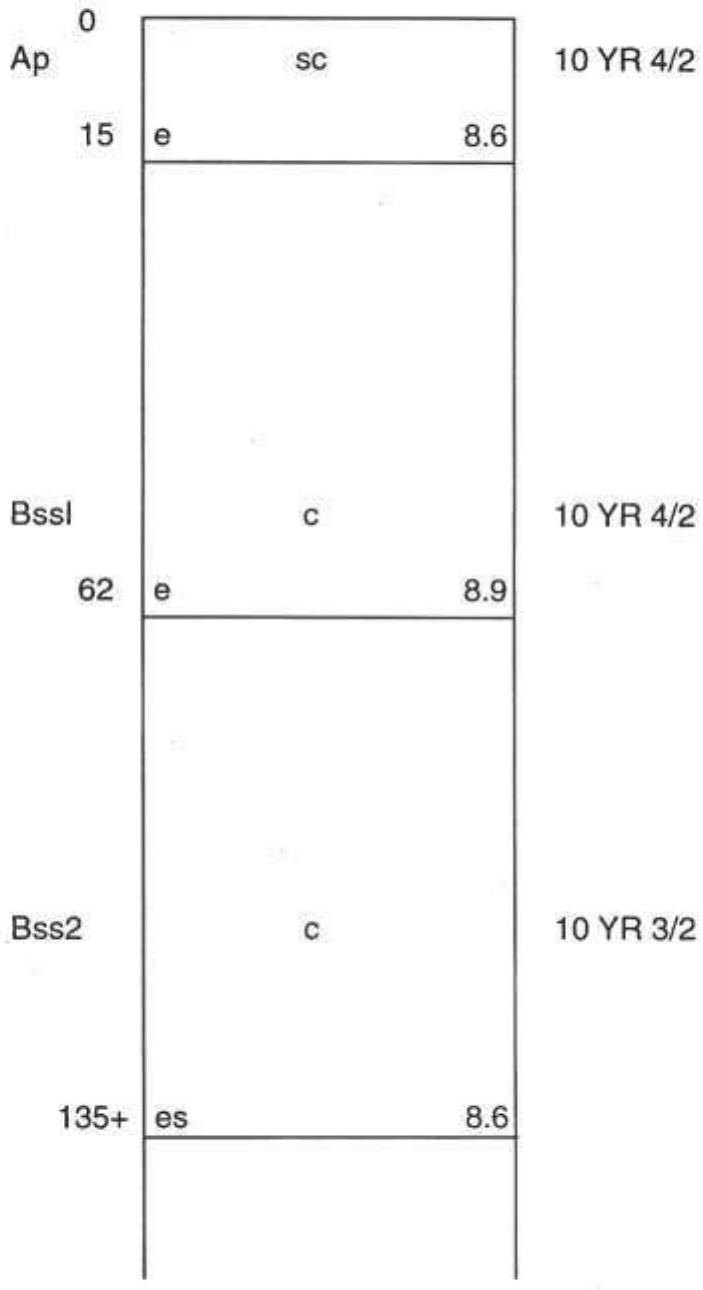
Brief description : This consists of dark grayish brown very deep calcareous heavy textured soils of alluvial origin with severe alkalinity. They develop deep wide cracks during dry periods and the permebility is moderately slow.

Location : Villangattur village of Virudhachalam taluk.

Horizon	Depth (cm)	Description
Ap	0 - 15	Dark grayish brown (10 YR 4/2); sandy clay; strong coarse subangular blocky; very hard (dry), firm (moist), sticky and plastic (wet); many fine roots; common fine and very fine pores; moderately slow permeability; clear smooth boundary ; pH 8.6.
Bss 1	15 - 62	Dark grayish brown (10 YR 4/2); clay; strong coarse subangular blocky ; very hard (dry), firm (moist), sticky and plastic (wet); few fine roots; few fine and very fine pores; slight effervescence; moderately slow permea bility; clear smooth boundary; pH 8.9.
Bss 2	62 - 135	Very dark grayish brown (10 YR 3/2); clay; strong coarse sub angular blocky; very hard (dry), firm (moist), sticky and plastic (wet); few fine and very fine pores; very slow permeability; strong effervescence; pH 8.6.

Distribution : Spread over 95941 (26.1%) area of 95605 126 % ha in the taluks of Chidambaram, Kattumannarkoil, Virudhachalam and Thittakudi taluks.

KONDAL SERIES (Knd)



Soil Taxonomy : *Fine mixed calcareous isohyperthermic* ***Typic Haplustert***

VADALAPAKKAM SERIES (Vdm)

Soil Taxonomy : Fine loamy mixed is ohyperthermic Typic Rhodustalf

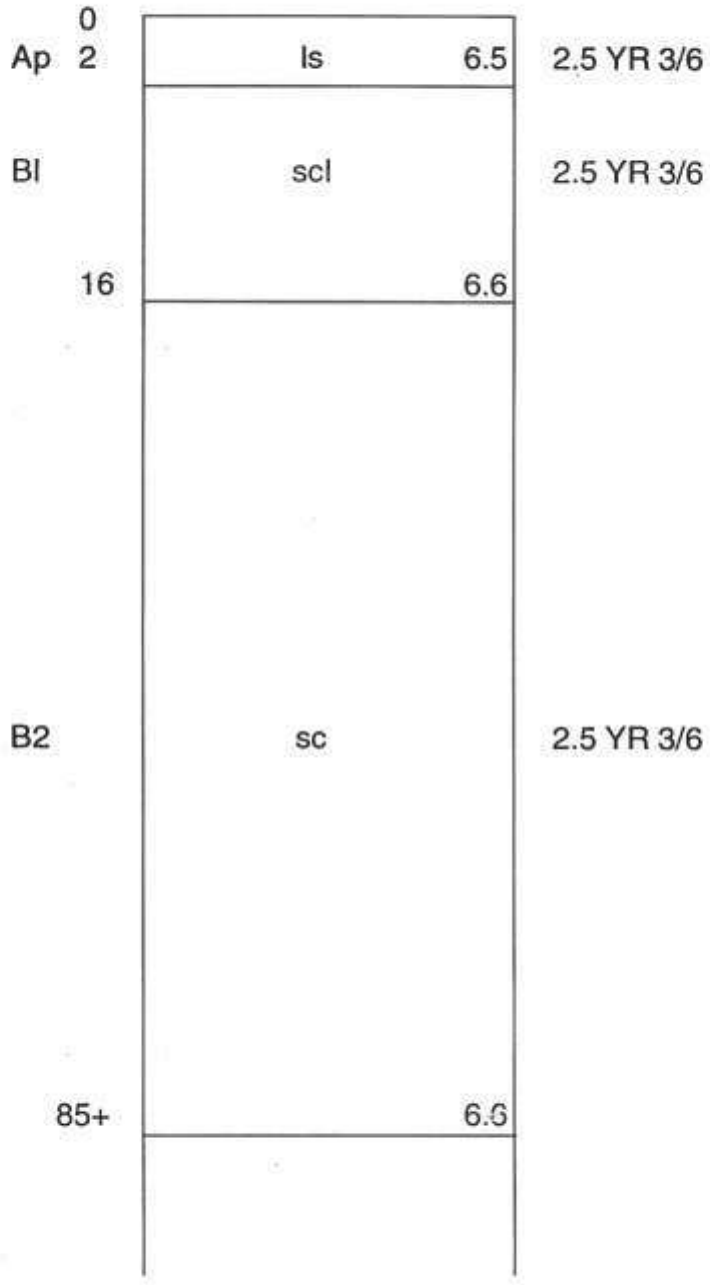
Brief description : These are dark reddish brown deep to very deep non calcareous medium textured soils of neutral reaction. They are developed from gnesis and moderately rapid permeable.

Location : Kodiyiruppu village, Panrutti taluk.

Horizon	Depth (cm)	Description
Ap	0 - 2	Dark reddish brown (2.5 YR 3/6); loamy sand; granular; loose (dry), friable (moist); common fine roots; rapid permeability; clear smooth boundary; pH 6.5.
B_1	2 - 16	Dark reddish brown (2.5 YR 3/6); sandy clay loam; moderate medium sub angular blocky; slightly hard (dry), firm (moist), slightly sticky (wet); few coarse roots; common fine and very fine pores; moderately rapid permeability; gradual smooth boundary; pH 6.6.
B_2	16 - 85+	Dark reddish brown (2.5 YR 3/6); sandy clay; moderate medium sub angular blocky; hard (dry), firm (moist), sticky and plasstic (wet); few fine and coarse roots; slow permeability; pH 6.6.

Distribution : Spread over 53076 ha in the taluks of Cuddalore, Panrutti Virudhachalam and Thittakudi taluks.

VADALAPAKKAM SERIES (Vdm)



Soil Taxonomy : *Fine loamy mixed isohyperthermic* ***Typic Rhodustalf***

VADAPUDUPET SERIES (Vdp)

Soil Taxonomy : Fine loamy mixed isohyperthermic Typic Haplustalf.

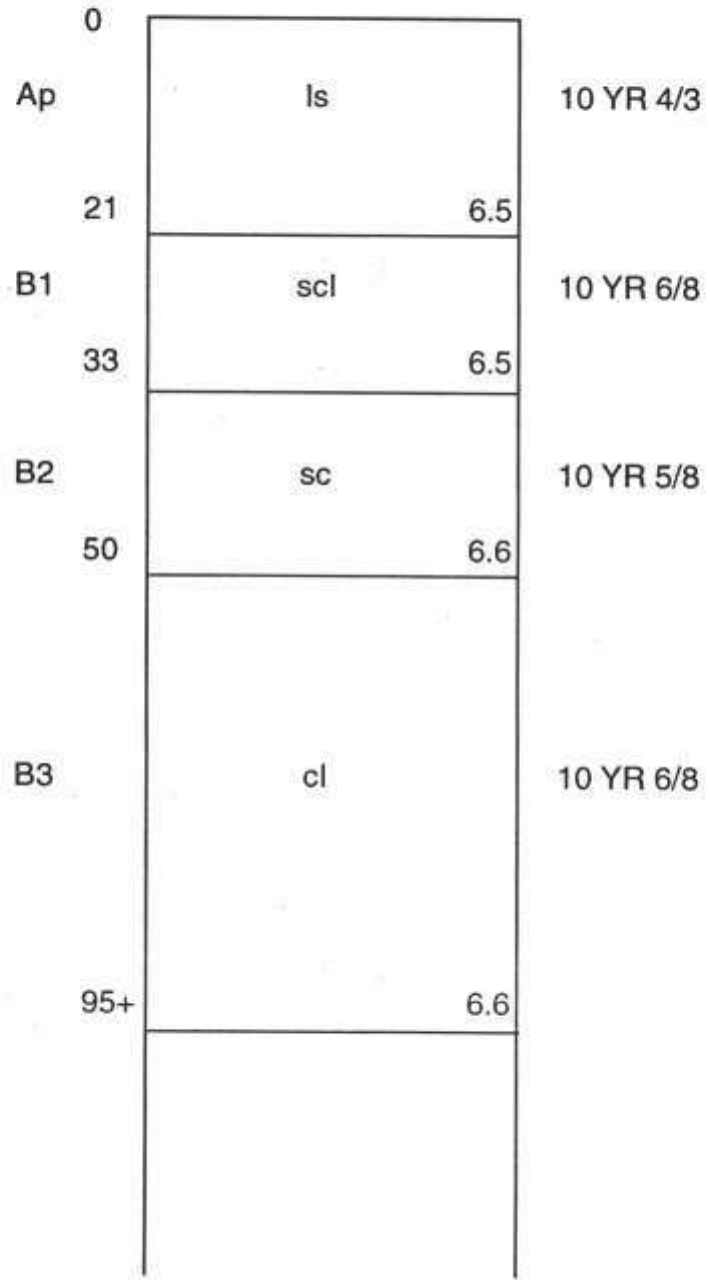
Brief description : This consists of dark brownish deep to very deep non calcareous medium textured neutral soils with moderately rapid to rapid permeability. Ferrugeneous gravels may present in the sub soil.

Location : East of Timmaravarthankuppam village, Cuddalore taluk.

Horizon	Depth (cm)	Description
Ap	0 - 21	Dark brown (10 YR 4/3); sandy loam; granular; loose (dry), friable (moist); few coarse roots; common fine and very fine pores; rapid permeability; clear smooth boundary; pH 6.5.
B_1	21 - 33	Brownish yellow (10 YR 6/8); sandy clay loam; weak medium subangular blocky; hard (dry), firm (moist), slightly sticky and slightly plastic (wet); thin patchy cutans; few fine roots; common fine, few medium pores; rapid permeability; diffused smooth boundary; pH 6.6.
B_2	33 - 50	Brownish yellow (10 YR 5/8); dandy clay; moderate medium subangular blocky; firm (moist), sticky and plastic (wet); patchy cutans; few fine roots; common fine and very fine pores; moderately rapid permeability; diffused smooth boundary; pH 6.6.
B_3	50 - 95 +	Brownish yellow (10 YR 6/8); clay loam; moderate medium sub angular blocky; firm (moist); sticky and plastic (wet); common fine pores; moderately rapid permeability; pH 6.6.

Distribution : Found distributed in the taluk of Cuddalore only to the extent of 35468 ha (9.71%).

VADAPUDUPET SERIES (Vdp)



Soil Taxonomy : *Fine loamy mixed isohyperthermic* ***Typic Haplustalf***

ARASANATHAM SERIES (Anm)

Soil Taxonomy : Fine loamy mixed calcareous isohyperthermic Typic Ustropept.

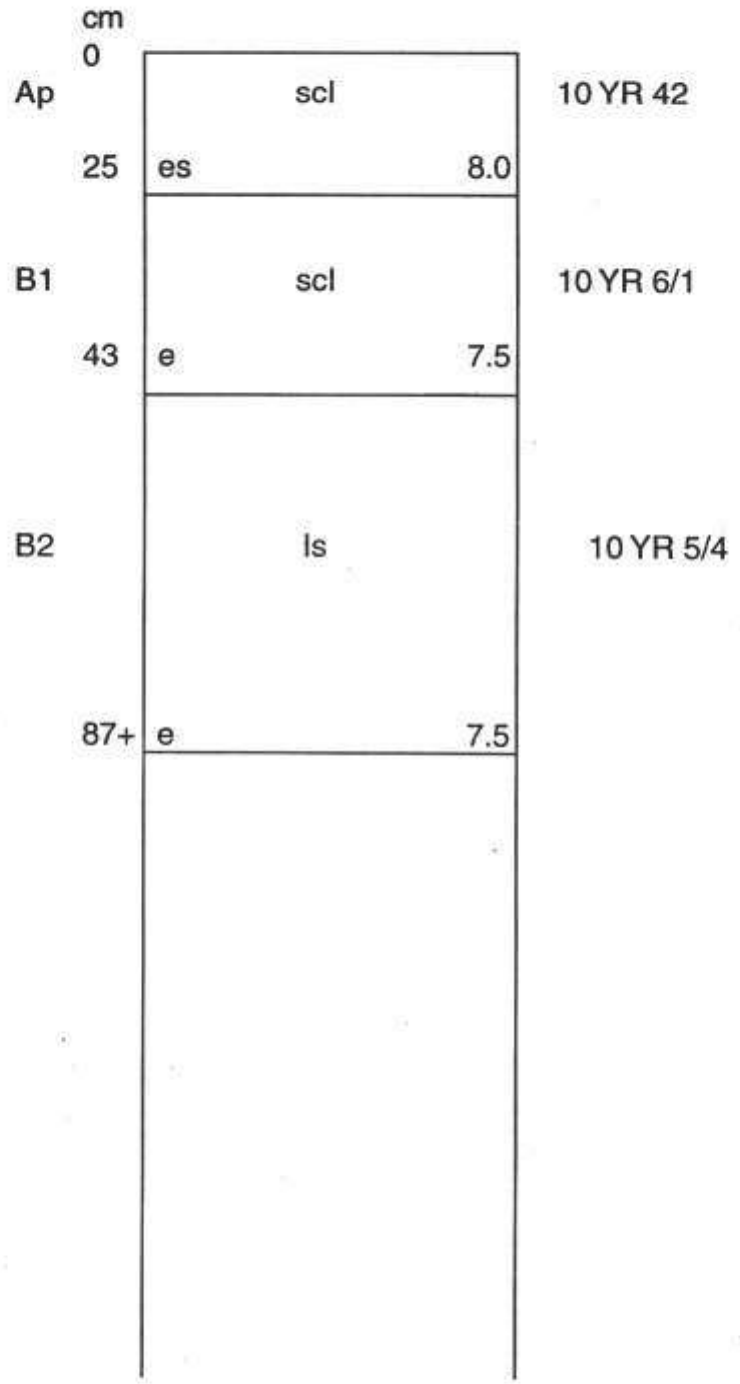
Brief Description : This consists of dark yellowish brown to dark brown deep to very deep calcareous soils occuring in tank fed system. They are well drained with moderately rapid permeability and moderately alkaline in reaction.

Location : Alapakkam village, Cuddalore taluk.

Horizon	Depth (cm)	Description
Ap	0-25	Dark grayish brown (10 YR 4/2); sandy clay loam; moderate medium sub angular blocky; slightly firm (moist), slightly sticky and slightly plastic (wet); common fine roots; common fine and very fine pores; strong effervescence; moderately slow permeability; clear smooth boundary; pH 8.0.
B 1	25 - 43	Gray (10 YR 6/1); sandy clay loam; moderate medium sub angular blocky; slightly firm (moist). slightly sticky and slightly plastic (wet); commonine roots; common fine and very fine pores; slight effervescence; rapid permeability; clear wavy boundary; pH 7.5.
B2	43-87+	Yellowish brown (10 YR 5/4); loamy sand; granular; friable (moist); few fine roots; many fine and very fine pores; slight effervescence; rapid permeability; pH 7.5.

Distribution : Occurs to the extent of 25988 (7.1%) ha in the taluks of Cuddalore, Panrutti, Virudhachalam and Thittakudi.

ARASANATHAM SERIES (Anm)



Soil Taxonomy : *Fine loamy mixed calcareous isohperthermic Typic Ustropept*

LALAPETTAI SERIES (Lpi)

Soil Taxonomy : Loamy skeletal mixed isohyperthermic Paralithic Ustropept.

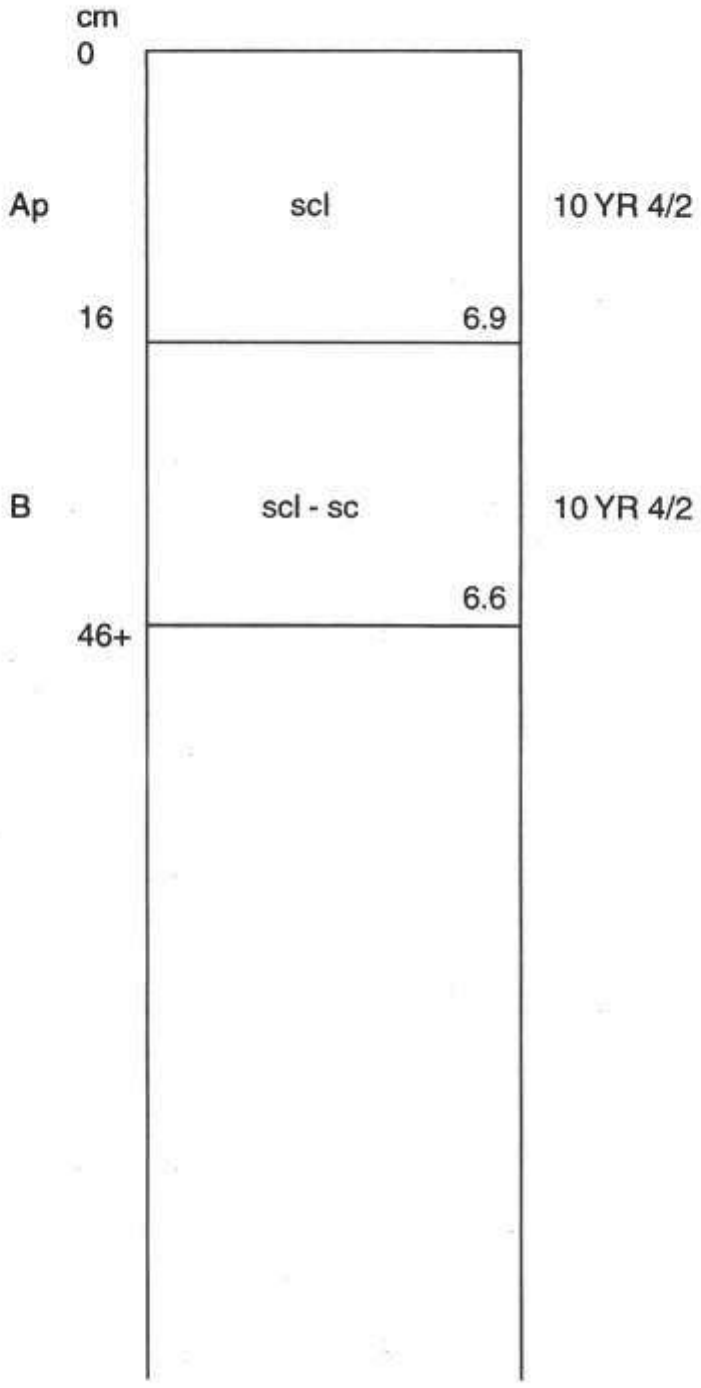
Brief description : This includes dark greyish brown moderately deep non calcareous soils derived from gneissic materials. They are well drained with moderately rapid permeability and neutral in reaction.

Location : Orangur village, Virudhachalam taluk.

Horizon	Depth (cm)	Description
Ap	0-16	Dark grayish brown (10YR 4/2); sandy clay loam; moderate medium sub angular blocky; slightly hard (dry), friable (moist), slightly sticky (wet), many fine Fe Mn concretions; many fine and very fine pores; few fine roots; moderately rapid permeability; clear irregular boundary; pH 6.9
B	16-46	Dark grayish brown (10YR 4/2); sandy clay loam to sandy clay; moderate medium sub angular blocky; slightly hard (dry), slightly firm (moist), slightly sticky and slightly plastic (wet); few fine Fe Mn concretions; many fine and very fine pores; moderate permeability; pH 6.6

Distribution : Distributed in the taluks of Virudhachalam and Thittakudi extending over 21562 oha (5.9%)

LALAPETTAI SERIES (Lpi)



Soil Taxonomy : *Loamy skeletal mixed isohyperthermic Paralithic Ustrope*

MADUKKUR SERIES (Mdk)

Soil Taxonomy : Fine loamy mixed isohyperthermic Typic Haplustalf.

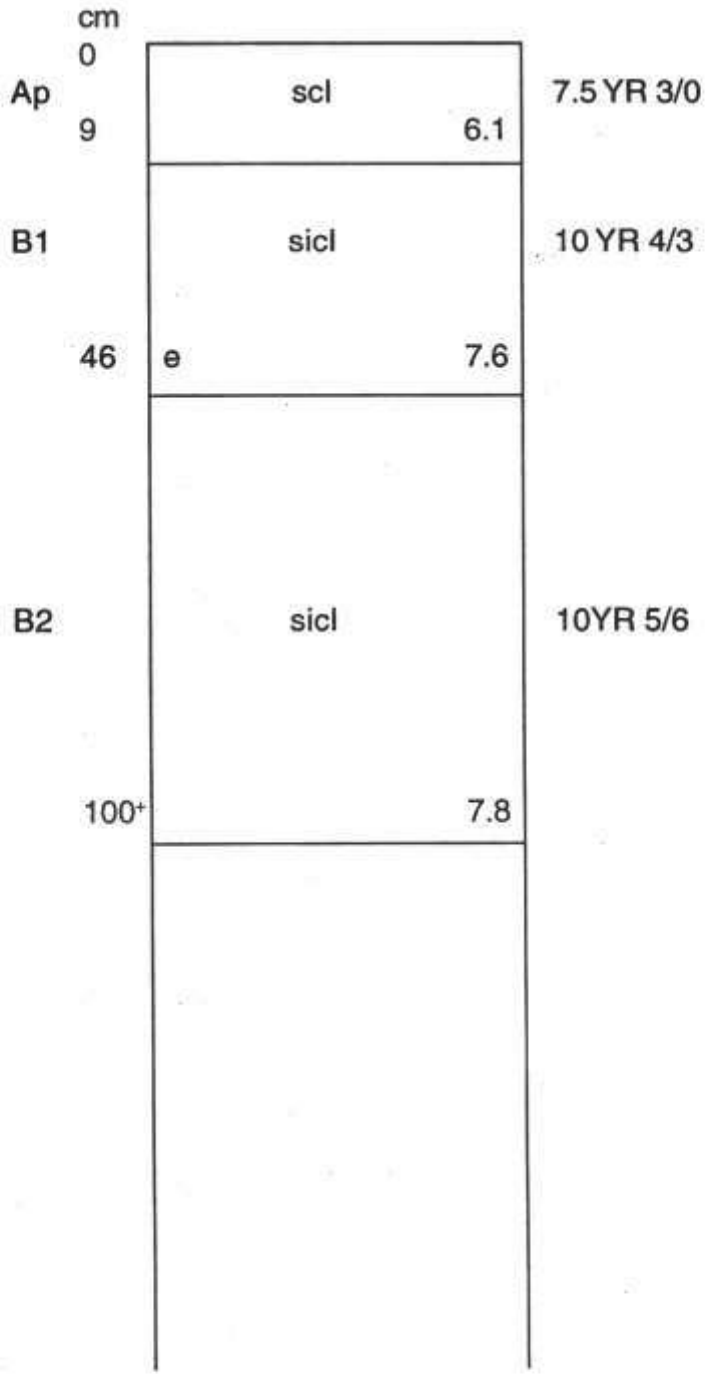
Brief Dexcription : This consists of dark grayish very deep medium to heavy textured soils of lateritic origin. They are neutral to mildly alkaline in reaction with moderately slow permeability.

Location : Elleri village, Chidambaram taluk.

Horizon	Depth (cm)	Description
Ap	0-9	Very dark gray (7.4 YR 3/0); sandy clay loam; strong coarse sub angular blocky; strong brown (7.5 YR 5/8) medium distinct root hair mottlings; hard (dry), firm (moist), slightly sticky and slightly plastic (wet); many fine and medium pores; many fine and medium roots; moderately slow permeability; clear smooth boundary; pH 6.1.
B_1	9 - 46	Brown (10 YR 4/3); silty clay loam; strong coarse sub angular blocky; very hard(dry), firm (moist), sticky and plastic (wet); few fine faint root hair mottlings black (10 YR 2.5/1); common fine Fe Mn conretions; few fine pores; few fine roots; slight effervescence; slow permeability; clear smooth boundary; pH 7.6.
B_2	46 - 100+	Yellowish brown (10YR 5/6); silty clay loam; strong coarse sub angular blocky; very hard (dry) , firm (moist), slightly sticky and slightly plastic (wet); many fine and medium pores; slow permeability; pH 7.8.

Distribution : It is occuring in the taluks of Chidambaram, Kattumannarkoil, Virudhachalam and Thittakudi taluks to the extent of 17620 ha (4.8 %).

MADUKKUR SERIES (Mdk)



Soil Taxonomy : *Fine loamy mixed isohyperthermic Typic Haplustalf*

PULAVANUR SERIES (Plr)

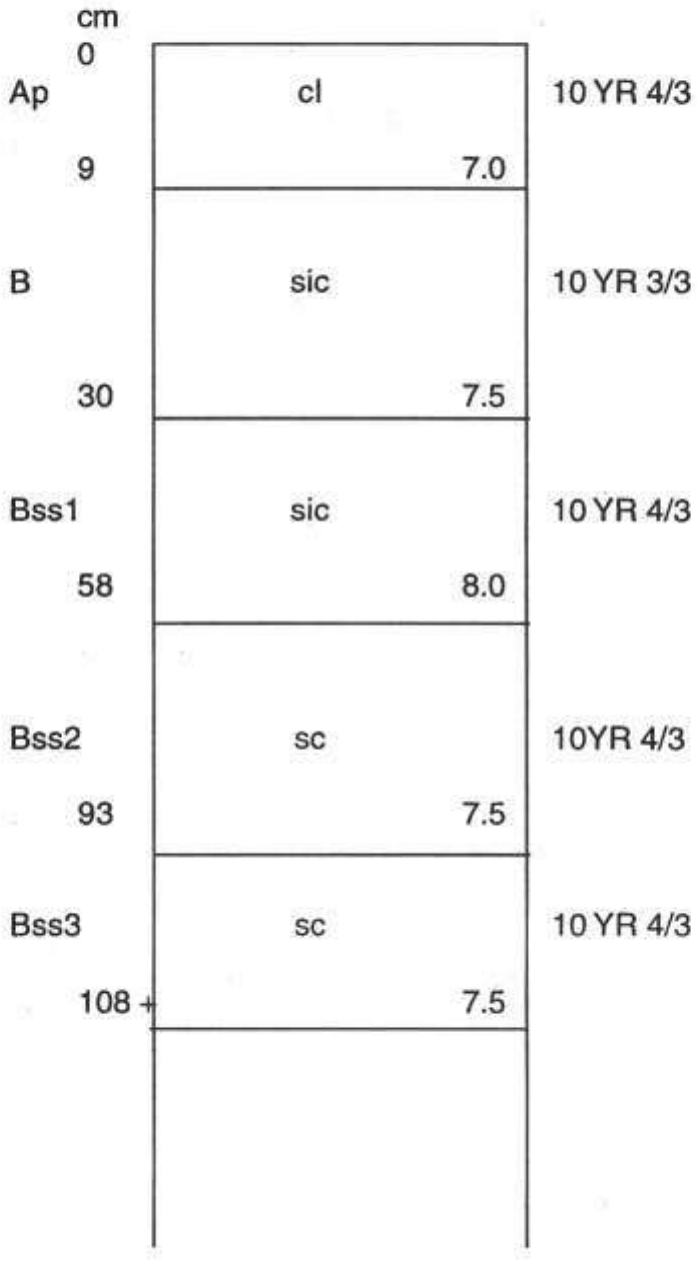
Soil Taxonomy : Fine mixed isohyperthermic Vertic Ustropept.

Brief description : These are dark grayish brown fine textured very deep neutral to mildly alkaline soils exhibiting vertic characteristics. They normally occur under tankfed system and poorly drained. Montmorillonitic type of clay mineralogy predominates.

Horizon	Depth (cm)	Description
Ap	0-9	Dark brown (10 YR 4/3) ; clay loam; moderate medium sub angular blocky; hard (dry) , firm (moist), sticky and plastic (wet); common fine nad medium roots; common fine and very fine pores; moderately rapid permeability; diffused smooth boundary; pH 7.0
B	9- 30	Dark brown (10 YR 3/3); silty clay; moderate medium angular blocky; firm (moist), sticky and plastic (wet); few fine roots; common fine and very fine pores; slow permeability; diffused smooth boundry; pH 7.5.
Bss 1	30 - 58	Dark brown (10 YR 4/3); silty clay; moderate medium subangular blocky; firm (moist), sticky and plastic (wet); few fine roots; few fine and very fine pores; slow permeability; diffused smooth boundary; pH 8.0.
Bss 2	58 - 93cm	Dark brown (10 YR 4/3); sandy clay; moderate medium angular blocky; firm (moist), sticky and plastic (wet); very few fine roots; common fine and very fine pores; slow permeabilty; diffused smooth boundary; pH 7.5.
Bss 3	93 - 108+	Dark brown (10 YR 4/3); sandy clay; moderate medium angular blocky; firm (moist) , sticky and plastic (wet), common fine and very fine pores; slow permeability; pH 7.5.

Distribution : The occurrence is limited to the taluks of Cuddalore and Panrutti covering an area of 16410 ha (4.5%).

PULAVANUR SERIES (Plr)



Soil Taxonomy : *Fine mixed isohyperthermic Vertic Ustropept*

PADUGAI SERIES (Pdg)

Soil Taxonomy : Sandy mixed isohyperthemic Typic Ustifluvent.

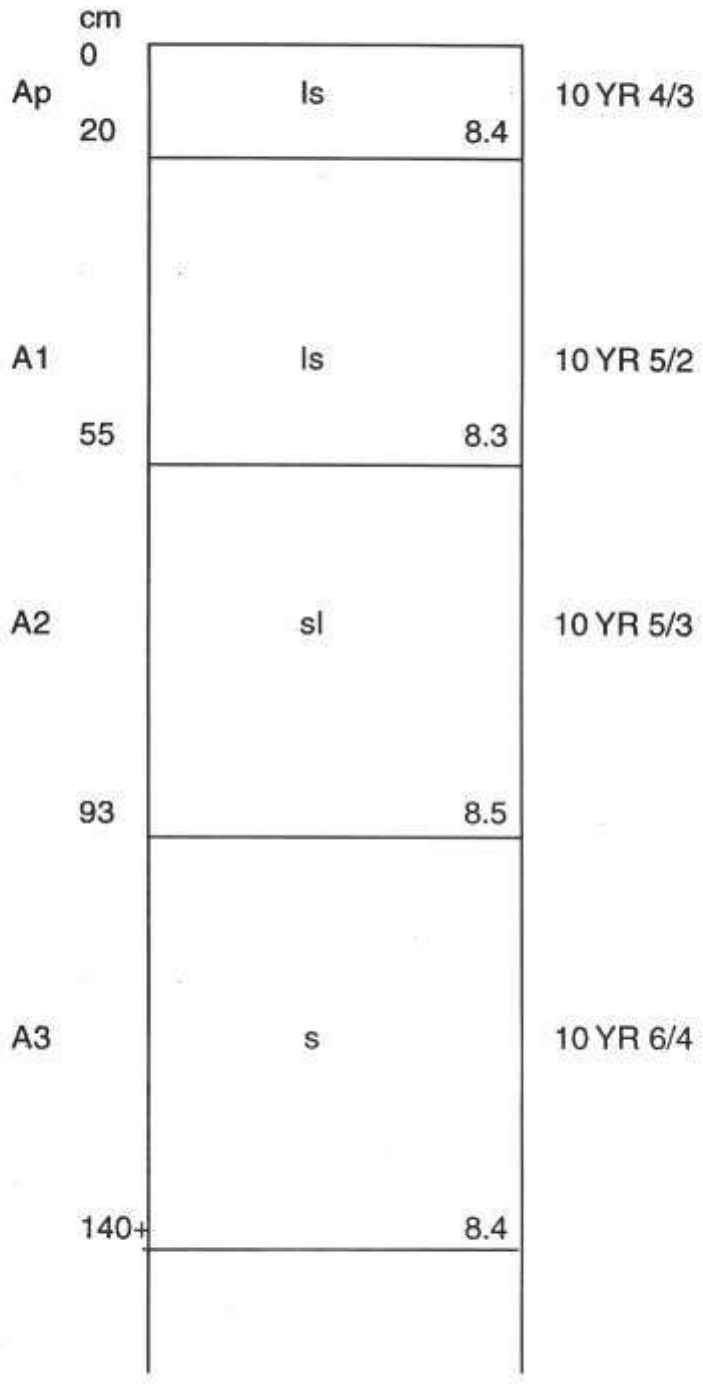
Brief description : These are yellowish brown to grayish brown very deep non calcareous sandy soils of alluvial origin. They are imperfectly drained with rapid permeability and are moderately alkaline in reaction.

Location : T. Puttur, Virudhachalam taluk.

Horizon	Depth (cm)	Description
Ap	0-20cm	Yellowish brown (10YR 4/3); loamy sand; granular; loose (dry), friable (moist); common fine roots; rapid permeability; clear smooth boundary; pH 8.4
A1	20 -55	Grayish brown (10YR 5/2); loamy sand; granular; loose (dry), friable (moist); few fine roots; rapid permeability; gradual irregular boundary; pH 8.3
A2	55 - 93	Brown (10 YR 5/3); sandy loam; weak fine granules; loose (dry), friable (moist), few fine roots; rapid permeability; gradual smooth boundary; pH 8.5.
A3	93 - 140	Light yellowish brown (10 YR 6/4); sand; single grained; loose (dry), friable (moist); very rapid permeability; pH 8.4.

Distribution : It is distributed in the taluks of Chidambaram, Kattumannarkoil, Virudhachalam and Thittagudi covering an area of 15959 ha (4.3%).

PADUGAI SERIES (Pdg)



Soil Taxonomy : *Sandy mixed isohyperthermic Typic Ustifluvent*

PATTUKOTTAI SERIES (Pkt)

Soil Taxonomy : Fine loamy mixed isohyperthermic Typic Haplustalf.

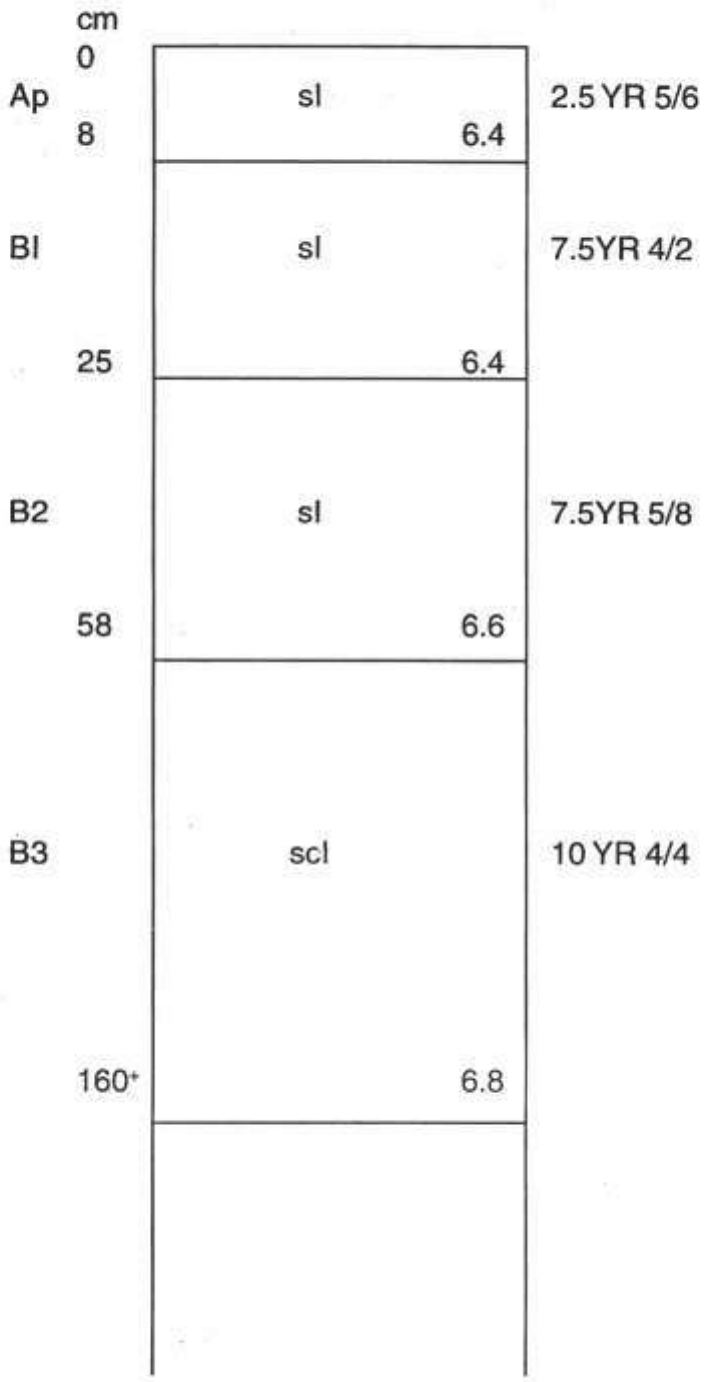
Brief description : This consists of dark brown to red, very deep light to medium textured non calcareous soils of lateritic origin. They are neutal in reaction with moderate permeability. Fe Mn concretions are present in the sub surface.

Location : Palanjanallur village, Chidambaram taluk.

Horizon	Depth (cm)	Description
Ap	0-8 cm	Red (2.5 YR 5/6); sandy loam; moderate medium subangular blocky; loose (dry), friable (moist); many fine roots; common fine and very fine pores; moderately rapid permeablity; clear smooth boundary; pH 6.4.
B_1	8- 25	Dark brown (7.5 YR 4/2); sandy loam; moderately medium subangular blocky; loose (dry), friable (moist); many fine roots; many fine and very fine pores; moderately rapid boundary; gradual smooth boundary; pH 6.4.
B2	25 - 58	Strong brown (7.5 YR 5/8); sandy loam; moderate coarse sub angular blocky; loose (dry), friable (moist) ; many fine concretions; many fine nad very fine pores; moderately rapid permeability; gradual smooth boundary; pH 6.6.
B3	58- 106+	Dark yellowish brown (10 YR 4/4) ; sandy clay loam; strong coarse sub angular blocky; many fine Fe Mn concretions; hard (dry), firm (moist), slightly sticky and slightly plastic (wet); common fine and very fine pores; moderate permeability; pH 6.8.

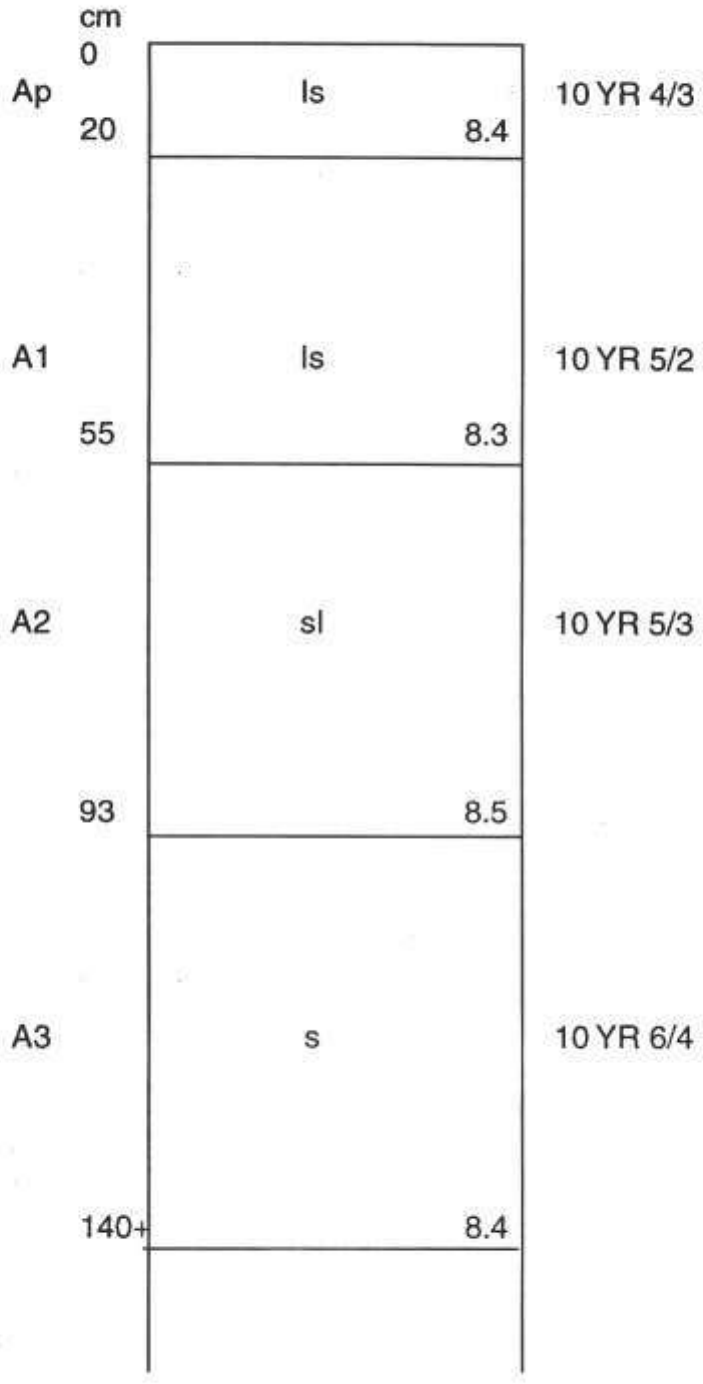
Distribution : Found distributed in the taluks of Chidambaram, Kattumannarkoil, Virudhachalam and Thittakudi to the extent of 12876 ha (3.5%).

PATTUKOTTAI SERIES (Pkt)



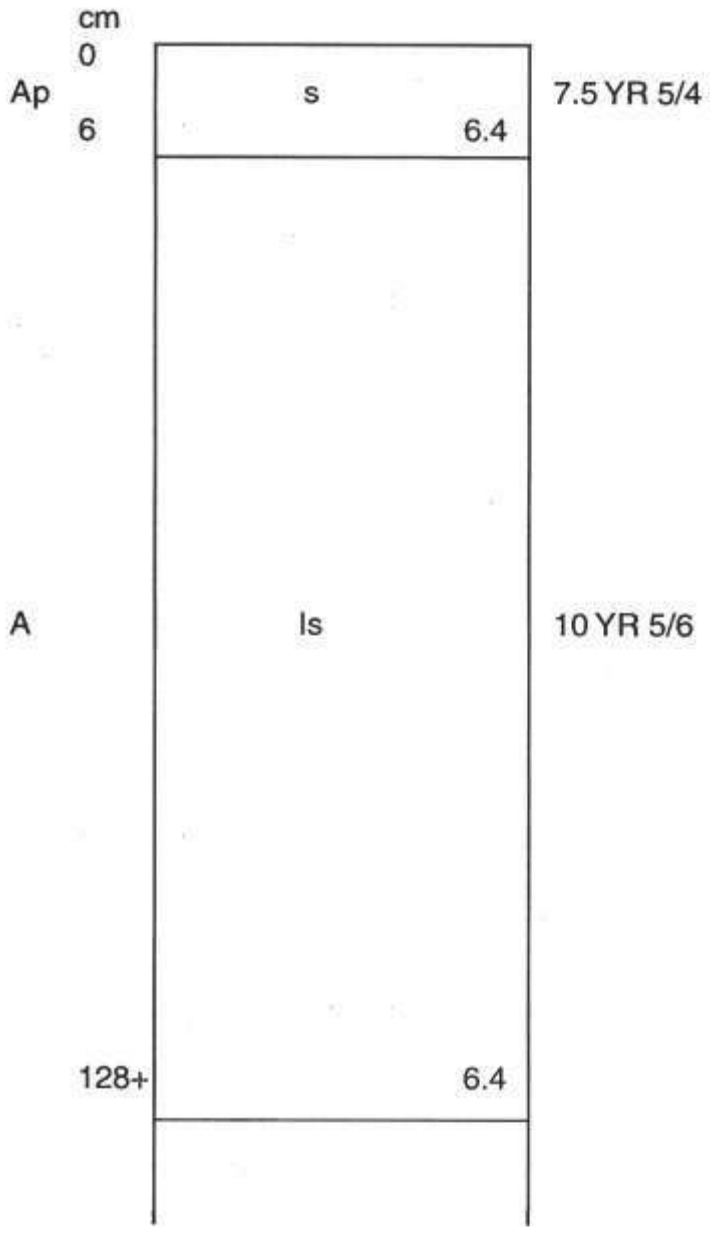
Soil Taxonomy : *Fine loamy mixed isohyperthermic Typic Haplustalf*

PADUGAI SERIES (Pdg)



Soil Taxonomy : *Sandy mixed isohyperthermic Typic Ustifluvent*

VALUTHALAKUDI SERIES (VId)



Soil Taxonomy : *Sandy mixed isohyperthermic Typic Ustipsamment*

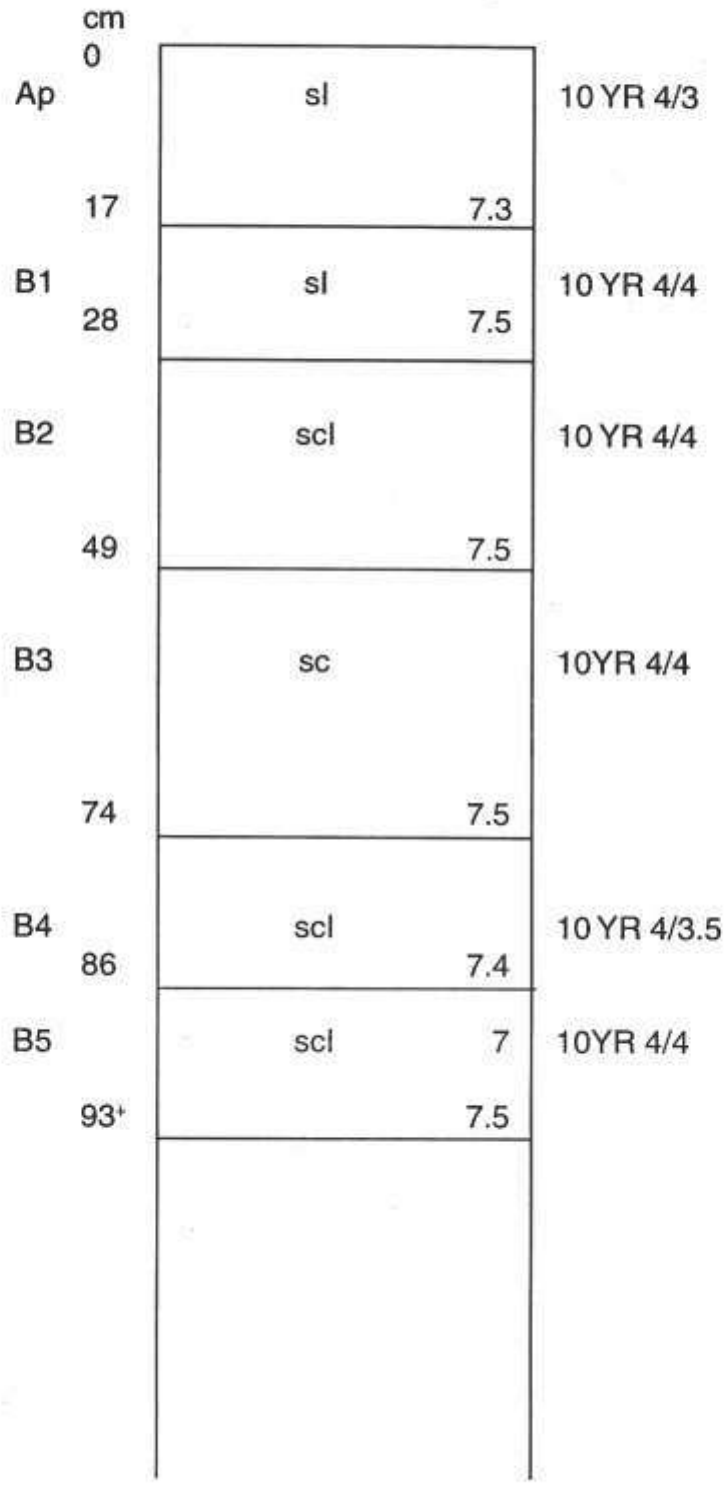
MANGADU SERIES (Mgd)

Soil Taxonomy **:** Fine loamy mixed isohyperthermic Fluvertic Ustropept

Brief description **:** This consists of dark brown, very deep non calcareous soils derived from alluvium. They are well drained and neutral in reaction.

Horizon	Depth (cm)	Description
Ap	0-17	Dark brown (10 YR 4/3); sandy loam; massive breaks to grannular; loose (dry), friable (moist); common fine roots; common fine and very fine pores; rapid permeability; diffues wavy boundary; pH 7.3.
B1	17-28	Dark brown (10 YR 4/4); sandy loam; weak fine sub angular blocky; loose (dry), friable (moist); common fine and very fine pores; rapid permeablility; clear smooth boundary; pH 7.5.
B2	28 - 49	Dark brown (10YR 4/4); sandy clay loam; weak fine subangular blocky; slightly hard (dry), slightly firm (moist), slightly sticky and slightly plastic (wet); common fine and very fine pores; moderately rapid permeability; clear smooth boundary; pH 7.5.
B3	49 - 74	Dark brown (10YR 4/4); sandy clay; moderate medium subangular blocky; firm (moist), sticky and plastic (wet); common fine and very fine pores; moderately slow permeability; clear smooth boundary; pH 7.5.
B4	74- 86	Dark brown (10YR 4/3.5); sandy clay loam; weak fine subangular blocky; slightly firm (moist), slightly sticky and slightly plastic (wet); common fine and very fine pores; slight effervescence; rapid permeability; diffused wavy boundary; pH 7.4.
B5	86 - 93 +	Dark brown (10YR 4/4) ; sandy clay loam; massive; friable (moist), slightly sticky and slightly plastic (wet); common fine and very fine pores; slight effervescence; pH 7.5.
Distribution	:	These soils are distributed in the taluks of Cuddalore and Panrutti as soil association.

MANGADU SERIES (Mgd)



Soil Taxonomy : *Fine loamy mixed isohyperthermic* ***Fluventic Ustropept***

VANUR SERIES (Vnr)

Soil Taxonomy : Fine mixed calcareous isohyperthermic Vertic Haplustalf.

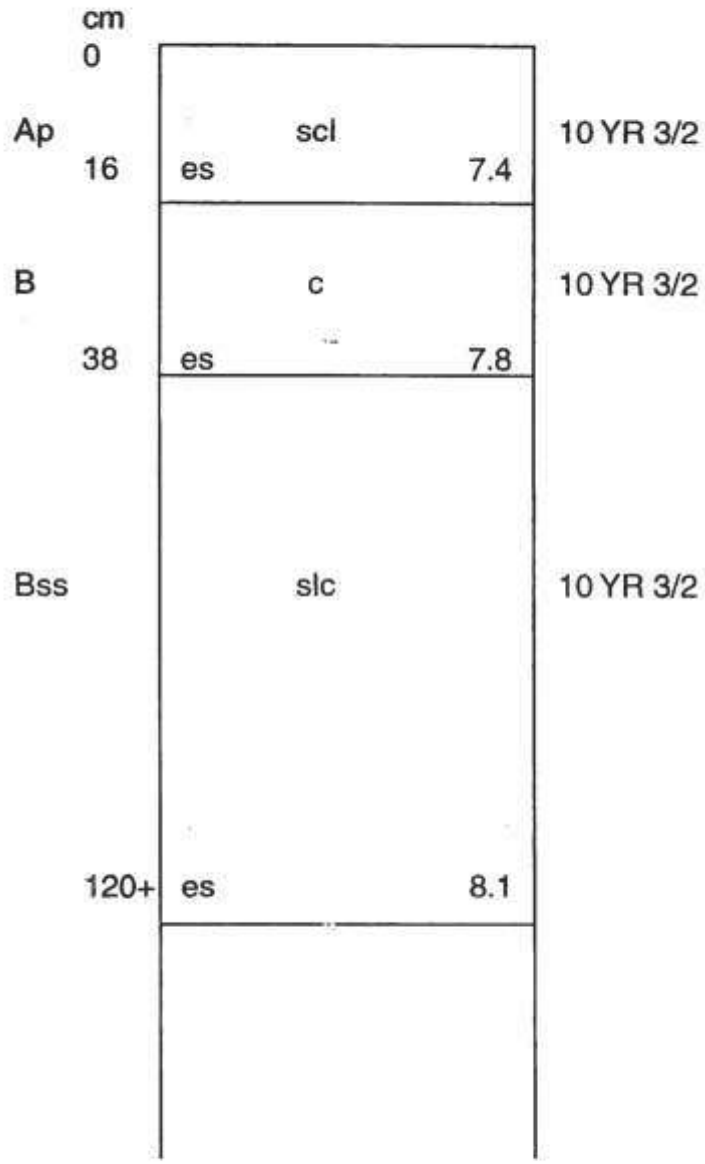
Brief Description : This consists of very dark grayish brown very deep calcareous soils of lateritic origin and develop cracks due to montmorillonitic minerology. They are confined to tank ayacut and are moderately slow in permeability. The reaction is mildly to moderately alkaline.

Location : Sattiyavadi village, Virudhachalam taluk.

Horizon	Depth (cm)	Description
Ap	0-16	Very dark grayish brown (10YR 3/2); sandy clay loam; strong coarse sub angular blocky; hard (dry), firm (moist), sticky and plastic(wet); many fine and very fine pores; many fine and medium roots; few fine Ca CO_3 nodules; moderate permeability; clear smooth boundary; pH 7.4
B	16-38	Very dark grayish brown (10 YR 3/2); clay; strong coarse subangular blocky; hard (dry), firm (moist), sticky and plastic (wet); few fine and very fine pores; few fine powdery and soft conca nodules; moderately slow permeablilty; clear smooth boundary; pH 7.8.
Bss	38 - 120+	Very dark grayish brown (10YR 3/2); silty clay; strong coarse subangular blocky; hard (dry), firm (moist), sticky and plastic (wet); few fine and very fine pores ; few very fine roots; few fine soft lime nodules; moderately slow permeablity; pH 8.1.

Distribution : The occurrence is limited to the taluks of Virudhachalam and Thittakudi taluks covering an area of 7955 ha (2.2%).

VANUR SERIES (Vnr)



Soil Taxonomy : *Fine mixed calcareous isohperthermic* ***Vertic Haplustalj***

ADANUR SERIES (Adn)

Soil Taxonomy : Fine loamy mixed calcareous isohyperthermic FluventicUstropept

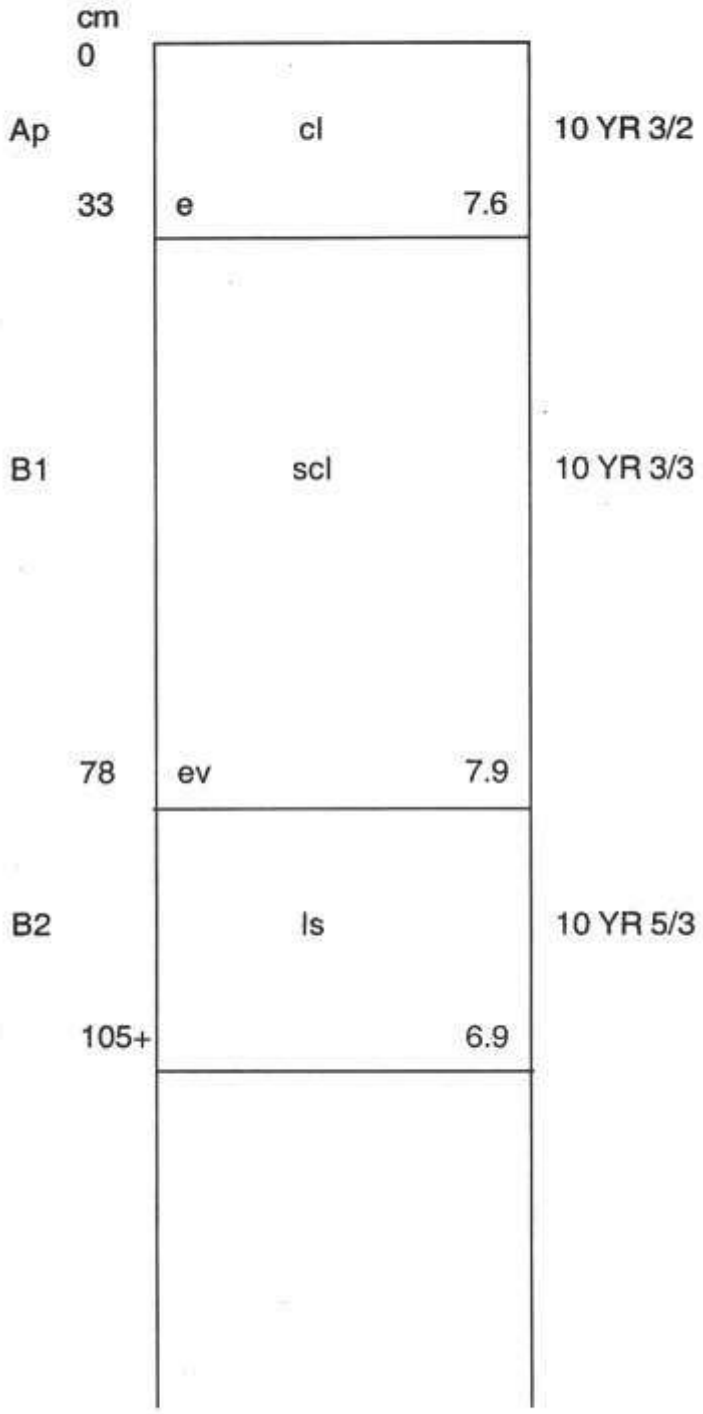
Brief description : This includes dark grayish brown to dark brown very deep calcareous medium textured soils. Fluvial sediments are also present in the solum. The reaction is midly alkaline with moderately rapid permeability.

Location : Manjakuzhi village of Chidambaram taluk

Horizon	Depth (cm)	Description
Ap	0 - 33	Very dark grayish brown (10YR 3/2); clay loam strong coarse subangular blocky; hard (dry), friable (moist), sticky and plastic (wet); many fine pores; many fine and very fine rocks; slight effervescence; moderate permeablility; abrupt smooth boundary; pH 7.6.
B1	33 - 78	Dark brown (10YR 3/3); sandy clay loam; moderate coarse subangular blocky; slightly firm (moist), slightly sticky (wet); dark gray (10 YR 3/1) distinct mottlings; few fine and very fine pores; few fine roots; voilent effervescence; rapid permeability; clear smooth boundary; pH 7.9.
B2	78 - 135+	Brown (10 YR 5/3); loamy sand; single grained; friable (moist); block (10 YR 2.5/ 1) fine many mottings; very rapid permeability; pH 6.9.

Distribution : This occurs in the taluks of Chidambaram and Kattumannarkoil taluks spreading over 7203 ha (2.0%).

ADANUR SERIES (Adn)



Soil Taxonomy : *Fine loamy mixed calcareous isohyperthermic*

Fluventic Ustropept

AMMAPETTAI SERIES (Amp)

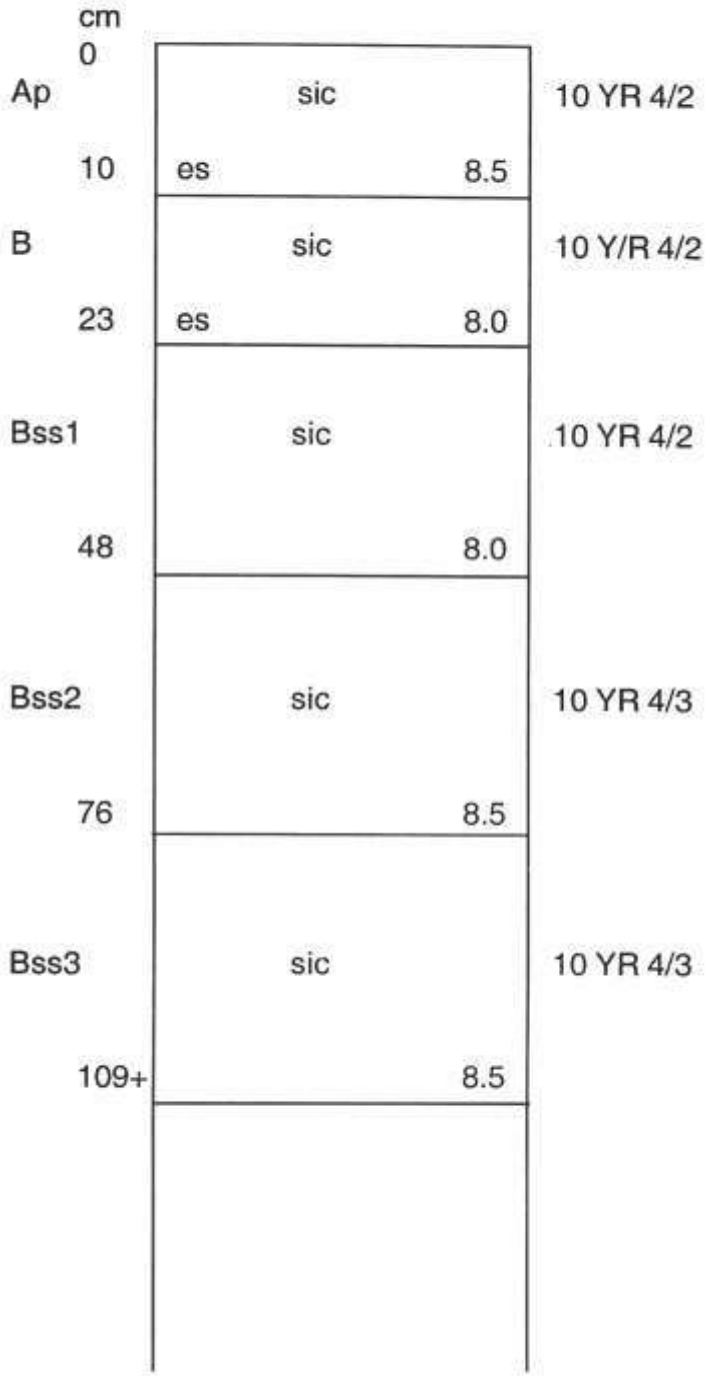
Soil Taxonomy : Fine mixed calcareous isohyperthermic Typic Haplustert

Brief description : These are dark grayish brown very deep calcareous fine textured soils. Montmorillonitic clay mineralogy dominantly present and are moderately alkaline in reaction. They develp deep wide cracks during moisture stress period and occur mostly in the tankfed ayacuts. Drainage is invariably poor.

Horizon	Depth (cm)	Description
Ap	0-10	Dark grayish brown (10YR 4/2); silty clay; strong medium sub angular blocky; hard (dry), firm (moist), sticky and plastic (wet); common fine and medium roots; many fine and very fine pores; strong effervescence; slow permeability; wavy smooth boundary; pH 8.5.
B	10 - 23	Dark grayish brown (10 YR 4/2); silty clay; moderate medium subangular blocky; hard (dry), firm (moist), sticky and plastic (wet); many fine roots; common fine and very fine pores; strong effervescence; slow permeability; wavy smooth boundary; pH 8.0
Bss 1	23 - 48	Dark grayish brown (10YR 4/2); silty clay; moderate medium angular blocky; hard (dry), firm (moist), sticky and plastic (wet); common fine roots; many fine pores; slight effervescence; slow permeability; wavy smooth boundary; pH 8.0.
Bss 2	42 - 76cm	Dark brown (10YR 4/5); silty clay; moderate medium angular blocky; hard (dry), firm (moist), sticky and plastic (wet); few fine roots; common fine pores; slow permeability; wavy smooth boundary; pH 8.5.
Bss3	76 - 109+	Dark brown (10YR 4/3); silty clay; moderate medium angular blocky; hard (dry), firm (moist), sticky and plastic (wet); few fine roots; common fine pores ; slow permeability; pH 8.5

Distribution : Occurences are seen in the taluks of Cuddalore and Panrutti to the extent of 6154 ha (1.7%).

AMMAPETTAI SERIES (Amp)



Soil Taxonomy : *Fine mixed calcareous isohyperthermic* ***Typic Haplustert***

VALLAM SERIES (Vlm)

Soil Taxonomy : Coarse loamy mixed isohyperthermic Typic Rhodustalf

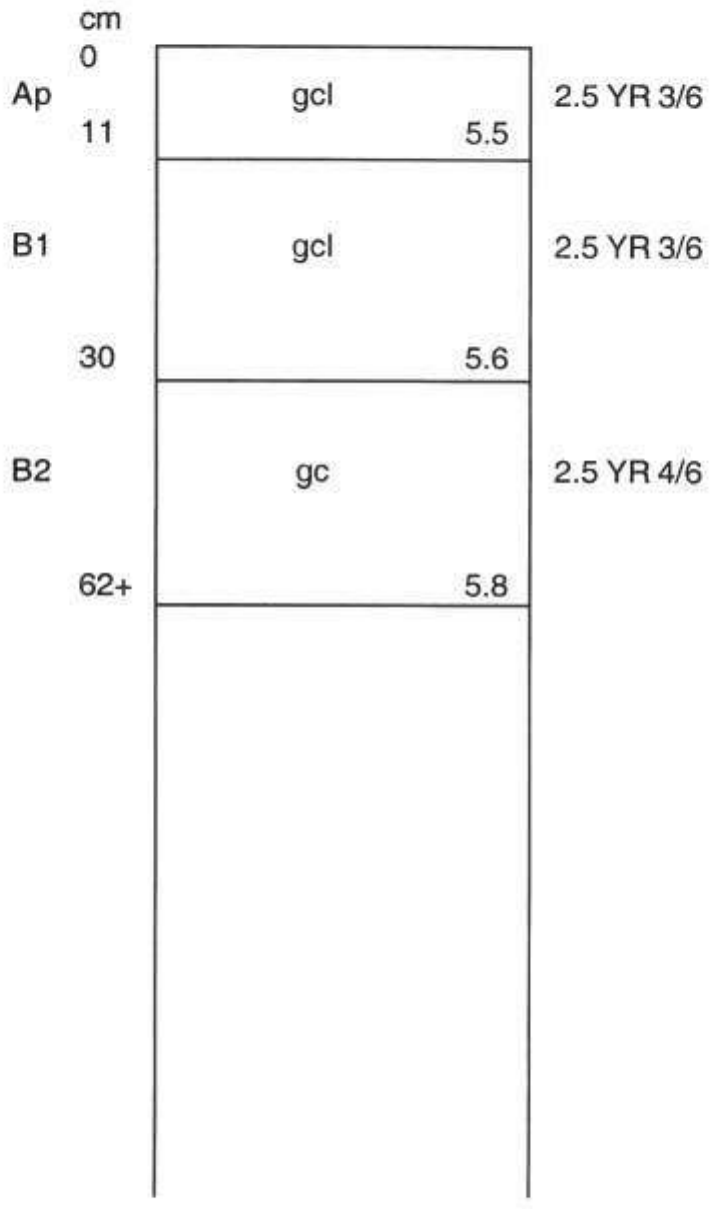
Brief description : Soils of this series are red to dark red deep non calcareous medium textured soils of lateritic origion. Usually associated with higher topographical positions with medium acidity and moderately slow permeability.

Location : Kozhai village of Chidambaram taluk.

Horizon	Depth (cm)	Description
Ap	0-11	Dark red (2.5 YR 3/6), gravelly clay loam; strong coarse subangular blocky; slightly hard (dry), slightly form (moist), slightly sticky (wet), common fine and very fine pores; moderately slow permeability; clear smooth boundary; pH 5.5.
B1	11 - 30	Dark red (2.5 YR 3/6); gravelly clay loam; moderate medium subangular blocky; slightly hard (dry), slightly firm (moist); slightly sticky (wet); common fine and very fine pores; moderately slow permeability; clear smooth boundary; pH 5.6.
B2	30 - 62+	Red (2.5 YR 4/6); gravelly clay; moderate medium subangular blocky; slightly hard (dry), firm (moist), sticky (wet); common fine and very fine pores; moderateely slow permeability; pH 5.8.

Distribution : Soils of Vallam series occur in the taluks of Chidambarm and Kattumannarkoil to the extent of 1693 ha (0.5%).

VALLAM SERIES (Vlm)



Soil Taxonomy : *Coarse loamy mixed isohyperthermic* ***Typic Rhodustalf***

PACHOL SERIES (Pcl)

Soil Taxonomy : Loamy skeletal mixed isohyperthemic Paralithic Ustorthent.

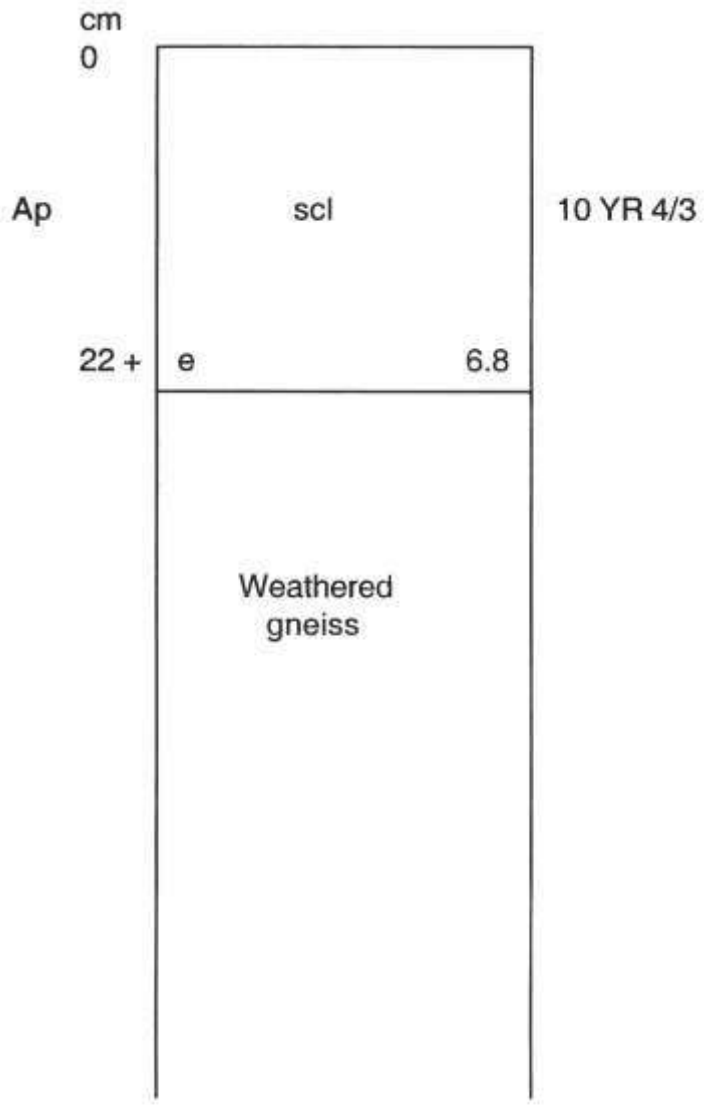
Brief description : This consists of brown to dark brown shallow non calcareous soils derived from laterite. Occurs at higher elevation and subjected to erosion. They are moderately well drained with moderately rapid permeabilty and neutral in reaction.

Location : Seppalatham village, Virudhachalam taluk.

Horizon	Depth (cm)	Description
Ap	0 - 22	Dark brown (10 YR 4/3); sandy clay loam; moderate medium subangular blocky; hard (dry), firm (moist), slightly sticky (wet); many fine Fe Mn concretions; many fine and very fine pores; few fine roots; moderately rapid; pH 6.8.
C	22+	Weathered gneiss

Distribution : Limited occurrences are seen in the taluks of Virudhachalam and Thittakud to the extent of 1341 ha (0.4%).

PACHOL SERIES (Pcl)



Soil Taxonomy : *Loamy skeleted mixed isohyperthermic* ***Paralithic Ustorthent.***

TIRUVENGADU SERIES (Tvg)

Soil Taxonomy : Fine loamy mixed isohyperthemic Fluventic Ustropept.

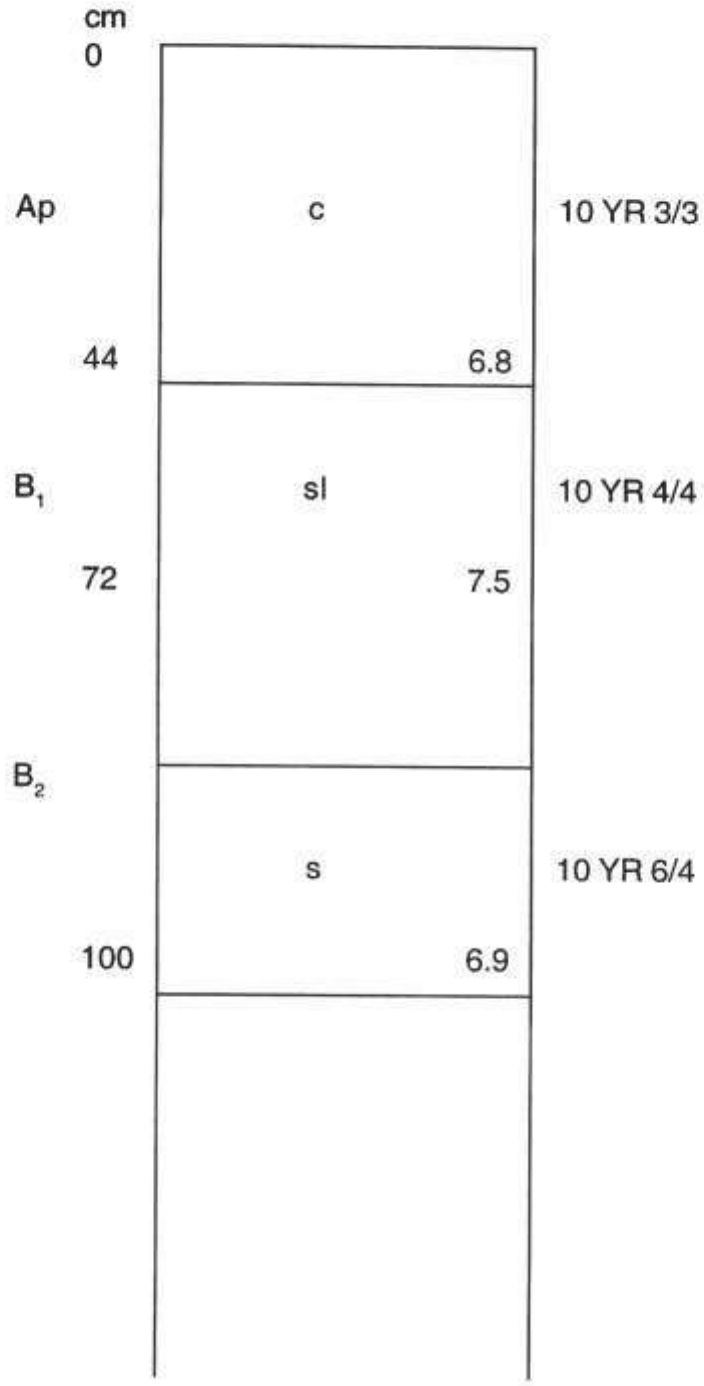
Brief description : This comprises dark brown to very dark grayish brown very deep light to medium textured non calcareous soils of alluvial origin with neutral reaction and moderately rapid permeability.

Location : Kilanuvampattu village of Chidambaram taluk.

Horizon	Depth (cm)	Description
Ap	0 - 44	Dark brown (10 YR 3/3); clay loam; strong coarse sub angular blocky; hard (dry), firm (moist), sticky and plastic (wet); common distinct strong brown (7.5 YR 5/5) mottlings; few fine and very fine pores; few fine roots; moderately slow permeability; clear wavy boundary; pH 6.8
B1	44 - 72	Dark yellowish brown (10YR 4/4); sandy loam; moderate medium sub angular blocky; loose (dry), friable (moist); common fine and very fine pores; rapid permeability; diffused wavy boundary; pH 7.5.
B2	72 - 100+	Light yellowish brown (10YR 6/4); sand; single grained ; very loose (dry), very firable (moist); common fine and very fine pores; very rapid permeability; pH 6.9.

Distribution : Limited occurrence of these soils in the taluks of Chidambaram and Kattumannarkoil extending over 887 ha (0.24%).

TIRUVENGADU SERIES (Tvg)



Soil Taxonomy : *Fine loamy mixed isohyperthermic* ***Fluventic Ustropept***

VADATHESASALUR SERIES (Vts)

Soil Taxonomy : Fine loamy mixed isohyperthermic Paralithic Rhodustalf

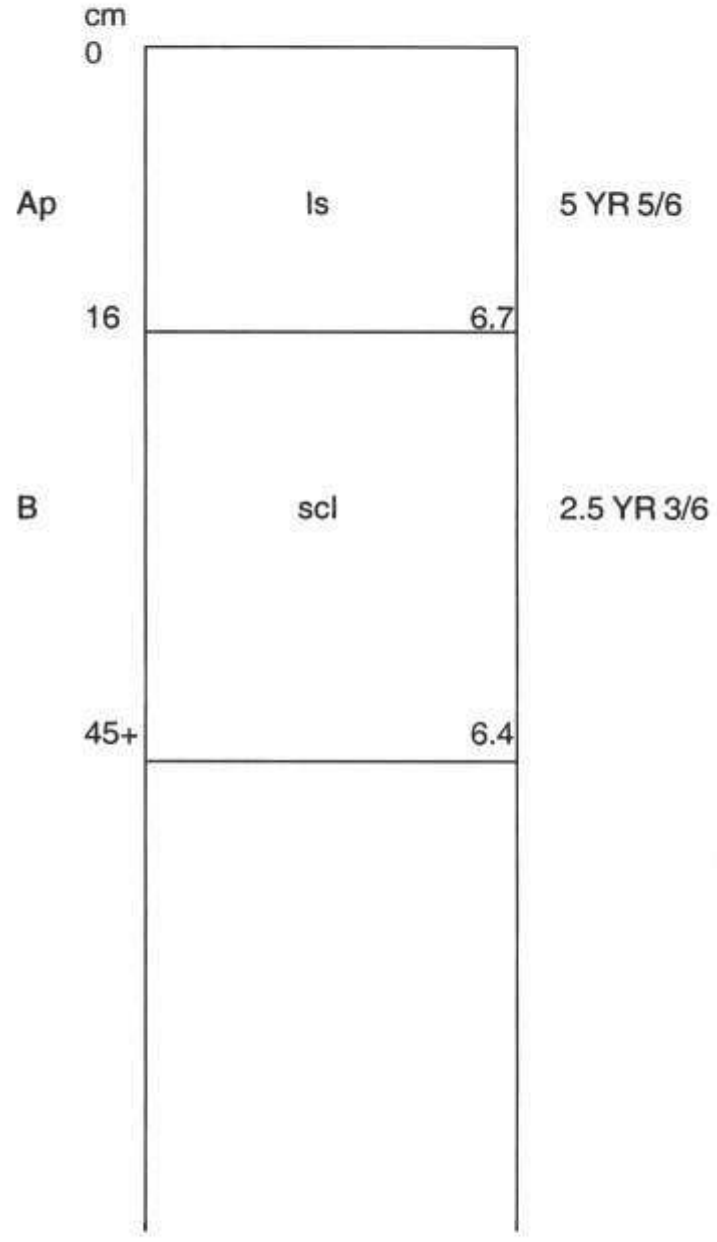
Brief description : They are yellowish red to dark red moderately deep non calcareous medium textured soils of lateritic origin. They are well drained with moderately rapid permeability and neutral in reaction.

Location : Sirumisalur village, Virudhachalam taluk.

Horizon	Depth (cm)	Description
Ap	0 - 16	Yellowish red (5 YR 5/6); loamy sand; granular; loose (dry), friable (moist); many fine and very fine pores; few fine roots; few fine Fe Mn concretions; rapid permeability; clear smooth boundary; pH 6.7.
B	16 - 45	Dark red (2.5 YR 3/6); sandy clay loam; strong coarse subangular blocky; hard (dry), firm (moist), sticky and plastic (wet); few fine Fe Mn concretions; few fine roots; many fine and very fine pores; moderate permeability; pH 6.4.

Distribution : Limited to Virudhachalam and Thittakudi taluks to the extent of 606 ha (0.16%).

VADATHESASALUR SERIES (Vts)



Soil Taxonomy : *Fine loamy mixed isohyperthermic* ***Paralithic Rhodustalf***

UCHIMEDU SERIES (Ucm)

Soil Taxonomy : Fine loamy mixed calcareous isohyperthermic Fluventic Ustropept.

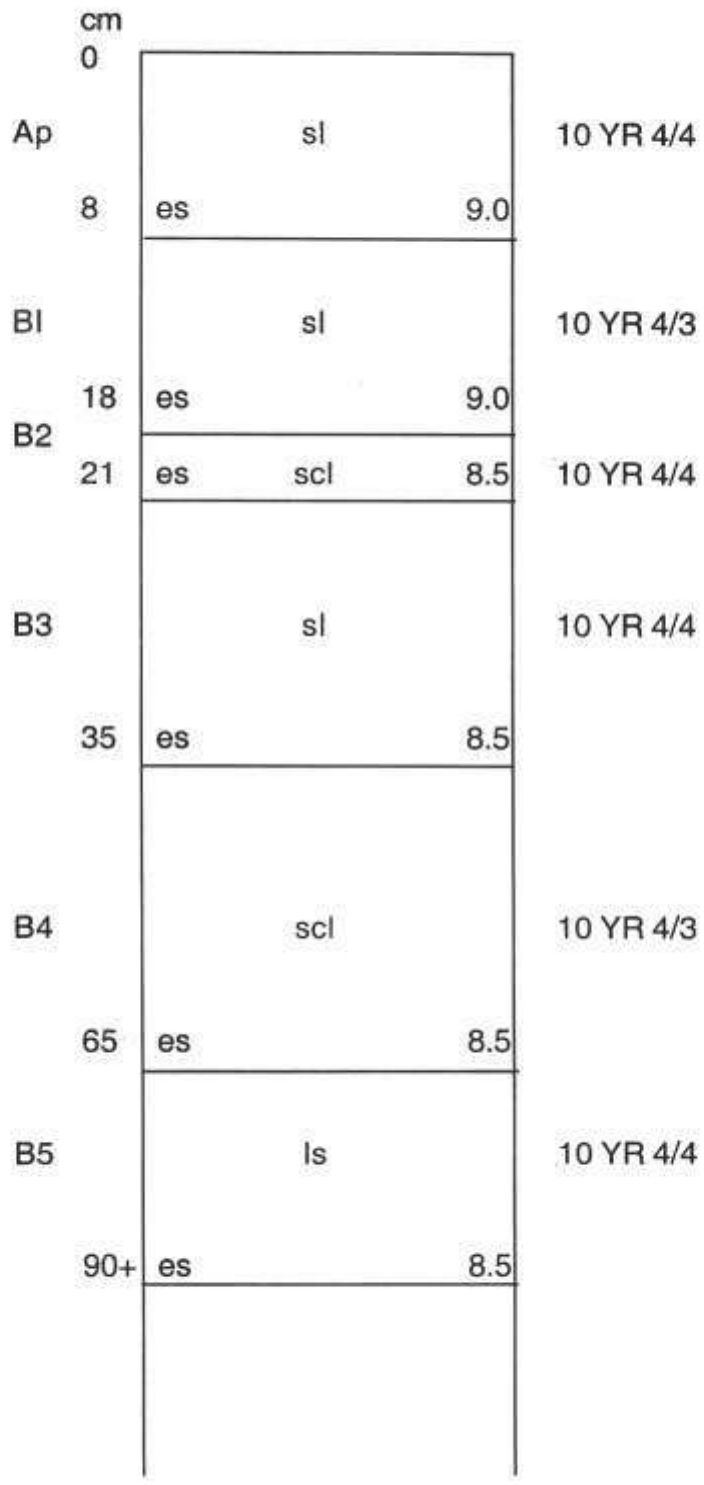
Brief description : These are dark yellowish brown very deep calcareous soils of medium texture resulted from fluvial deposits. They are well drained with moderately rapid to rapid permeability and the reaction is moderately alkaline.

Location : Uchimedu village, Cuddalore taluk.

Horizon	Depth (cm)	Description
Ap	0 - 8	Dark yellowish brown (10 YR 4/4); sandy loam; weak medium subangular blocky; slightly hard (dry), slightly firm moist), slightly sticky (wet); many fine strong effervescence; moderately rapid permeability; clear smooth boundary; pH 9.0.
B_1	8 - 18	Dark yellowish brown (10 YR 4/3); sandy loam; moderate medium subangular blocky; slighlty firm (moist), slightly sticky (wet); common fine roots; many fine and very fine pores; strong effervescence; moderately rapid permeability; clear smooth boundary; pH 9.0.
B_2	18 - 21	Dark brown (10 YR 4/5); sandy clay loam; moderate medium subanjular blocky; firm (moist), sticky and slightly plastic (wet); few fine roots; common fine and very fine pores; strong effervescence; modetate permeability; clear smooth boundary; pH. 8.5.
B_3	21 - 35	Dark yellowish brown (10 YR 4/4); sandy loam; moderate medium subangular blocky; slightly firm (moist), slightly sticky (wet); few fine roots; common fine and very fine pores; strong effervescence; moderately rapid permeability; clear smooth boundary; pH 8.5.
B_4	35 - 65	Dark brown (10 YR 4/3); sandy clay loam; moderate medium subangular blocky; firm (moist), sticky and plastic (wet); few fine and very fine pores; strong effervescence; moderately slow permeability; abrupt smooth boundary; pH 8.5.
B_5	65 - 90+	Dark brown (10 YR 4/4); loamy sand; single grained; loose (dry), friable (moist); few very fine roots; strong effervescence; rapid permeability; pH 8.5.

Distribution : These soils are confined to Cuddalore taluk only covering 166 ha.

UCHIMEDU SERIES (Ucm)



Soil Taxonomy : *Fine loamy mixed calcareous isohyperthermic* ***Fluventic Ustropept***

MAHABALIPURAM SERIES (Mbm)

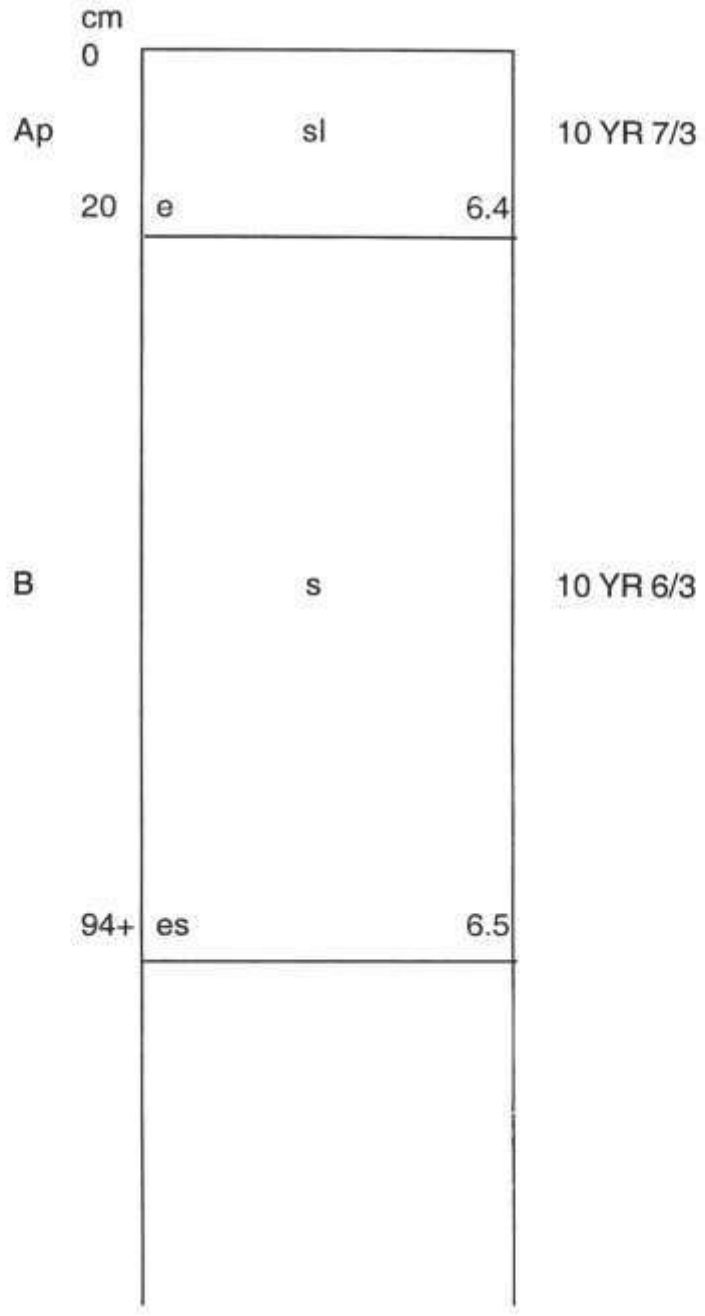
Soil Taxonomy : Sandy mixed isohyperthermic Typic Ustipsamment

Brief description : This consists of yellowish to yellowish brown very deep light textured non calcareous soils of alluvial origin. They are well drained and midly alkaline in reaction. Capacity for retention of water and nutrients is low.

Horizon	Depth (cm)	Description
Ap	0 - 20	Very pale brown (10 YR 7/3); loamy sand single grained; loose (dry), friable (moist); many fine roots; slight effervescence; rapid permeability; clear irregular boundary; pH 6.4.
B	20 - 94*	Light brownish gray (10 YR 6/3); sand; single grained; very loose (dry), very friable (moist); common pores; strong effervescence; rapid permeability; pH 6.5.

Distribution : Occurrence is restricted to Cuddalore taluk only as soil associations.

MAHABALIPURAM (Mbm)



Soil Taxonomy : *Sandy mixed isohyperthermic* ***Typic Ustipsamment***

LAND CAPABILITY

It is a broad grouping of soil based on the inherent soil characteristics, external land features and environmental factors that limit the use of land, thereby assess the suitability of land for cultivation, grazing and forest plantation. There are eight land capability classes indicated by Roman numerals. Classes I to IV are considered for arable uses, while classes V to VIII for non arable uses. The capability sub class indicates the dominant kind of limitation, such as 'e' for erosion and run off, 's' for root zone limitation and 'w' for wetness or excess water.

Area (ha)	Land capability classification	Soil Series	Limitation
261431 71.08%	IIe IIs	Vadapudupet Adanur, Padugai, Kondal, Madukkur and Vadalapakkam	Erosion & run off Texture, drainage
	IIes IIsw	Pattukottai Arasanatham	Erosion, texture Texture, wetness
65221 17.73%	IIIs IIIes	Lalapettai, Tiruvengadu, Ammapettai, Mangadu, Pulavanur, Mahabalipuram Uchimedu, Vadathesasalur and Vanur Vallam, Pachol.	Texture drainage, wetness Erosion and run off
9657 2.63%	IVes	Valuthalakudi	Erosion and run off

Class

II Good cultivable lands that have few limitations for sustained use under agriculture

III Moderately good cultivable lands that have severe limitations for sustained use under agriculture

IV Marginal Lands that have very severe limitations for sustained use under agriculture

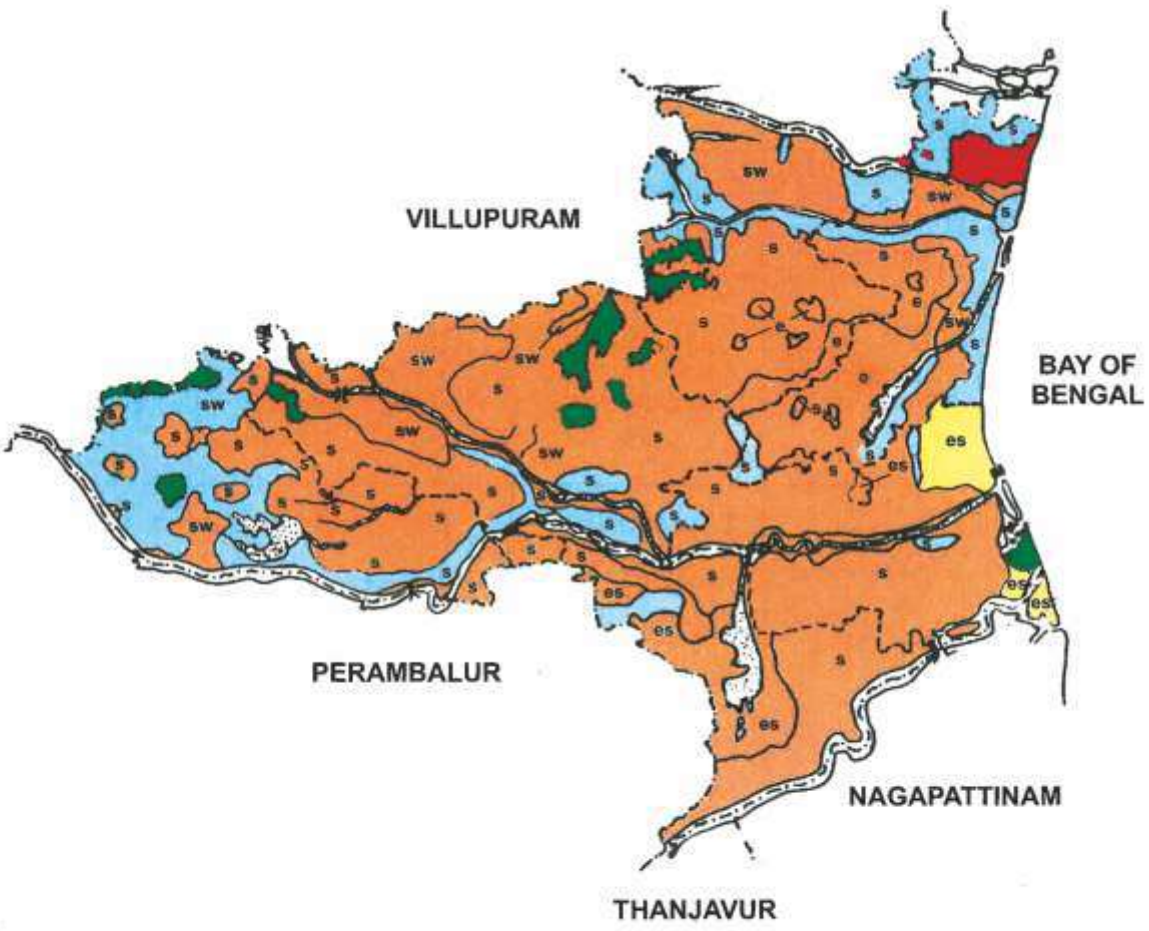
Subclass

s - Root zone limitation

e - Erosion and run off

w - Wetness

LAND CAPABILITY
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- FOREST BOUNDARY
- PONDICHERRY
- WATER BODY

LEGEND

CLASS

- Good Cultivable Land
- Moderately Good Cultivable Land
- Fairly Good Cultivable Land

SUB CLASS

- s Soil Limitation
- e Erosion and Runoff
- w Wetness

LAND IRRIGABILITY

This grouping of soils is based on the relative degree of limitation of soils for sustained use under irrigation. Irrigability classes depend upon the physico chemical properties and there are 6 classes, of which first four classes are irrigable lands, class 5 presently not suitable and class 6 is considered permanently not suitable for irrigation. Nature of limation may be soil(s) or topography(t) or drainage(d) or in combinations.

Area (ha)	Land irrigability classification	Soil Series	Limitation
236330 64.26%	2s 2st 2 sd	Pattukottai Madukkur Vadalapakkam Vadapudupet Tiruvengadu Kondal	Texture, drinage, alkalinity development Run-off, topography texture,drainage
90322 24.56%	3s 3 st 3 sd	Lalapettai Arasanatham Vadathesasalur Mangadu Mahabalipuram Uchimedu Vanur Vallam Pachol Ammapettai Pulavanur	Depth, texture, alkalinity, drainage Soil erosion, depth, topography Slow permeability, alkalinity, drainage
9657 2.63%	4s	valuthalakudi	Texture, drainage

Class

2 - Lands that have moderate limitations for sustained use under irrigation.

3 - Lands that have severe limitations for sustained use under irrigation.

4 - Lands that have very severe limitations for sustained use under irrigation.

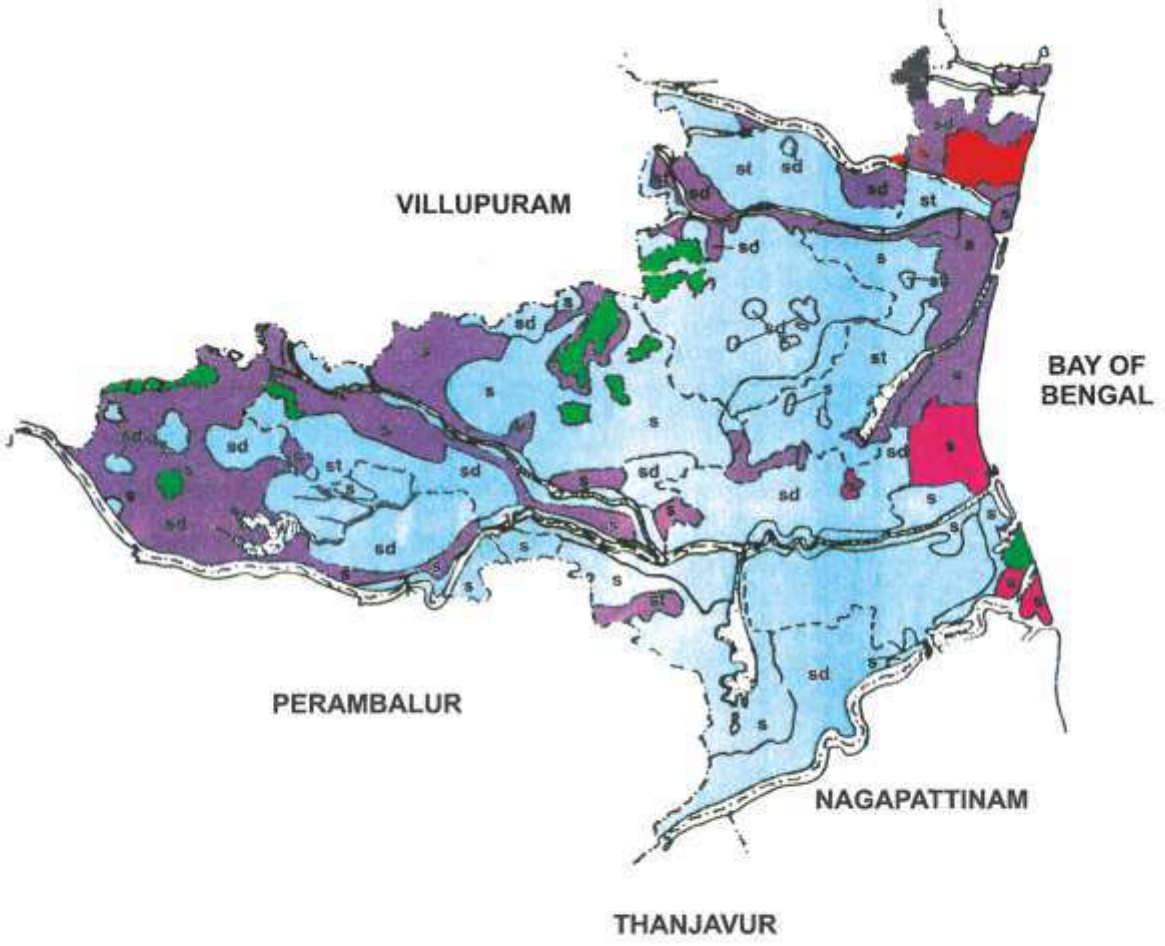
Sub Class

s - Soil limitation

t - Topographical limitation

d - Drainage hazard

LAND IRRIGABILITY
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
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- FOREST BOUNDARY
- PONDICHERRY
- WATER BODY

LEGEND

CLASS

- Moderate Limitation
- Severe Limitation
- Very Severe Limitation

SUB CLASS

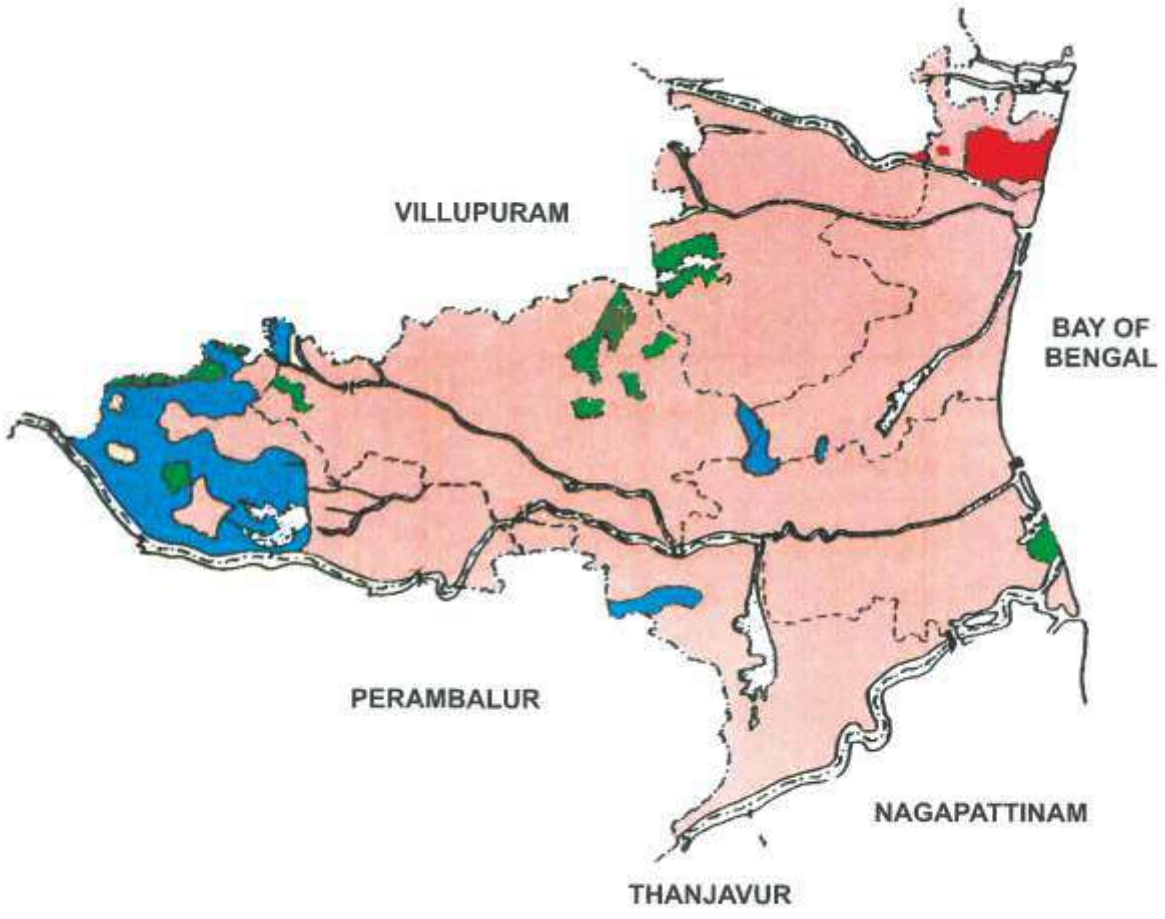
- s — Soil Limitation
- t — Topographic Limitation
- d — Drainage Hazard

SOIL PRODUCTIVITY

It is the inherent capability of soil to produce certain amount of crop yield per unit area and is a function of soil characteristics under normal management system (Requier et al, 1976). Factors like moisture, drainage, effective depth, texture, structure, base saturation, soluble salts, organic matter, cation exchange capacity and mineral resources are taken into consideration for rating productivity classes namely very poor, poor, average, good and excellent. After correcting the deficiency their potential productivity could be exploited. Neither good nor excellent lands seldom occur.

Area (ha)	Productivity		Soil Series	Needs
	Rating	Grouping		
25368 6.89%	8-19	Poor	Mahabalipuram Uchimedu Lalapettai Vadathesasalur Pachol Vallam	Soil conservation, textural improvement, drainage, nutrients.
320941 84.54%	20-34	Average	Vadapudupet Vadalapakkam Ammapettai Arasanatham Pulavanur Mangadu Kondal Madukkur Padugal Tiruvengadu Pattukottai Valuthalakudi Vanur Adanur	Deep ploughing soil reclamation drainage soil conservation textural improvement fertility management

SOIL PRODUCTIVITY
CUDDALORE DISTRICT



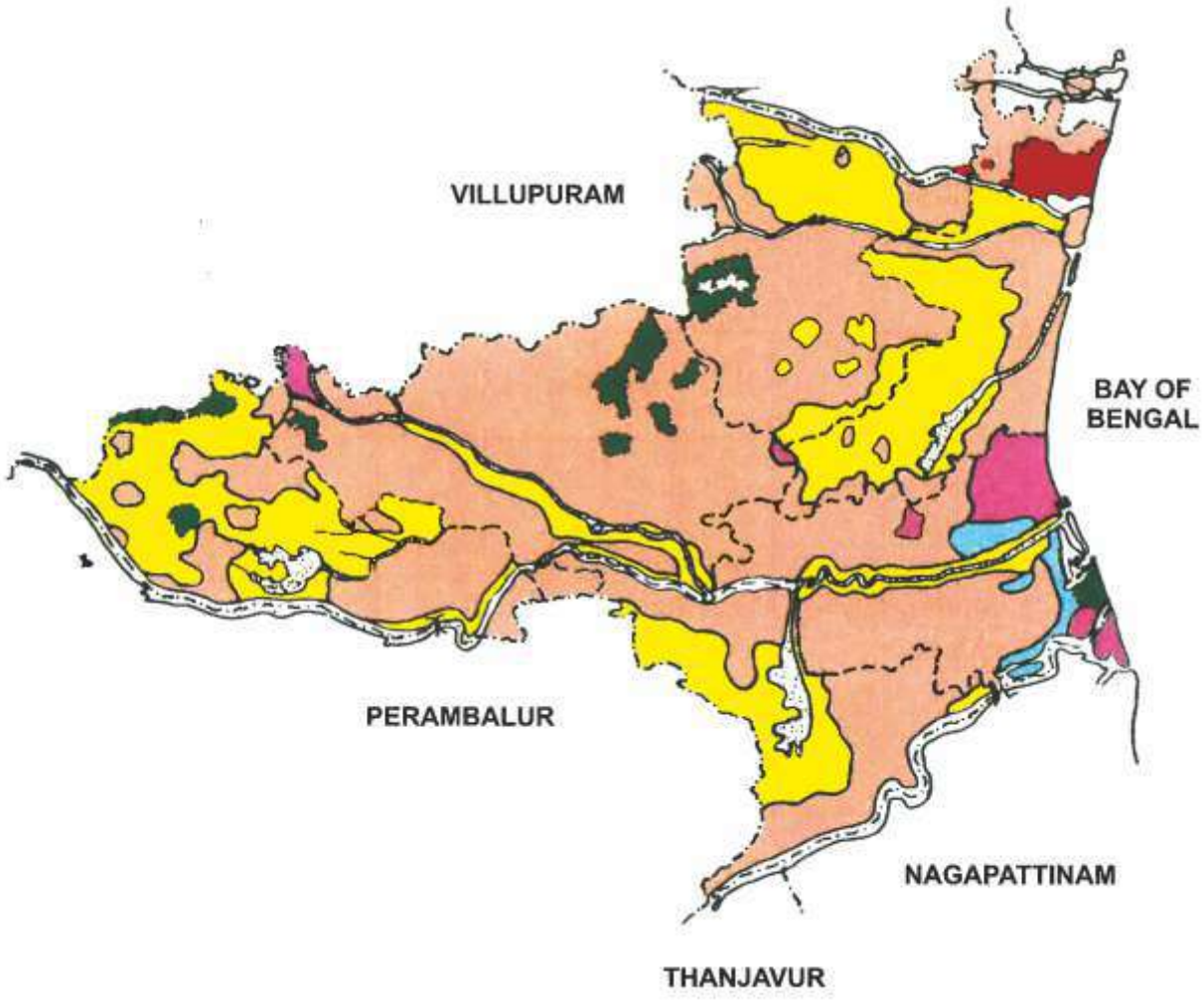
SUITABILITY FOR RICE

Rice , the dominant crop of the district, normally grows well under semi aquatic situation and also in uplands. Favourable temperature (> 22°C) irrigation water and suitable soils are important factors for growing rice. A pH range of 6-8 is found to be optimim for raising the crop. A wide range of suitability is seen in the district. Paddy comes up well in the soils of Adanur series.

Class		Soil Series	Area in ha (%)
1.	Higly suitable	Adanur	7203 (1.97)
2.	Moderately suitable	Kondal Madukkur Tiruvengadu Vanur Vadalapakkam Arasanatham Pulavanur Mangadu Uchimedu	229944 (62.52)
3.	Marginaly suitable	Padugai Vadathesasalur Lalapettai Vadapudupet Pattukkottai Vallam	88164 (23.97)
4.	Temporarily not suitable	Valuthalakudi Pachol Mahabalipuram	10998 (2.99)

Limitations are due to soil texture and development of alkalinity / calcareousness.

SUITABILITY FOR RICE
CUDDALORE DISTRICT



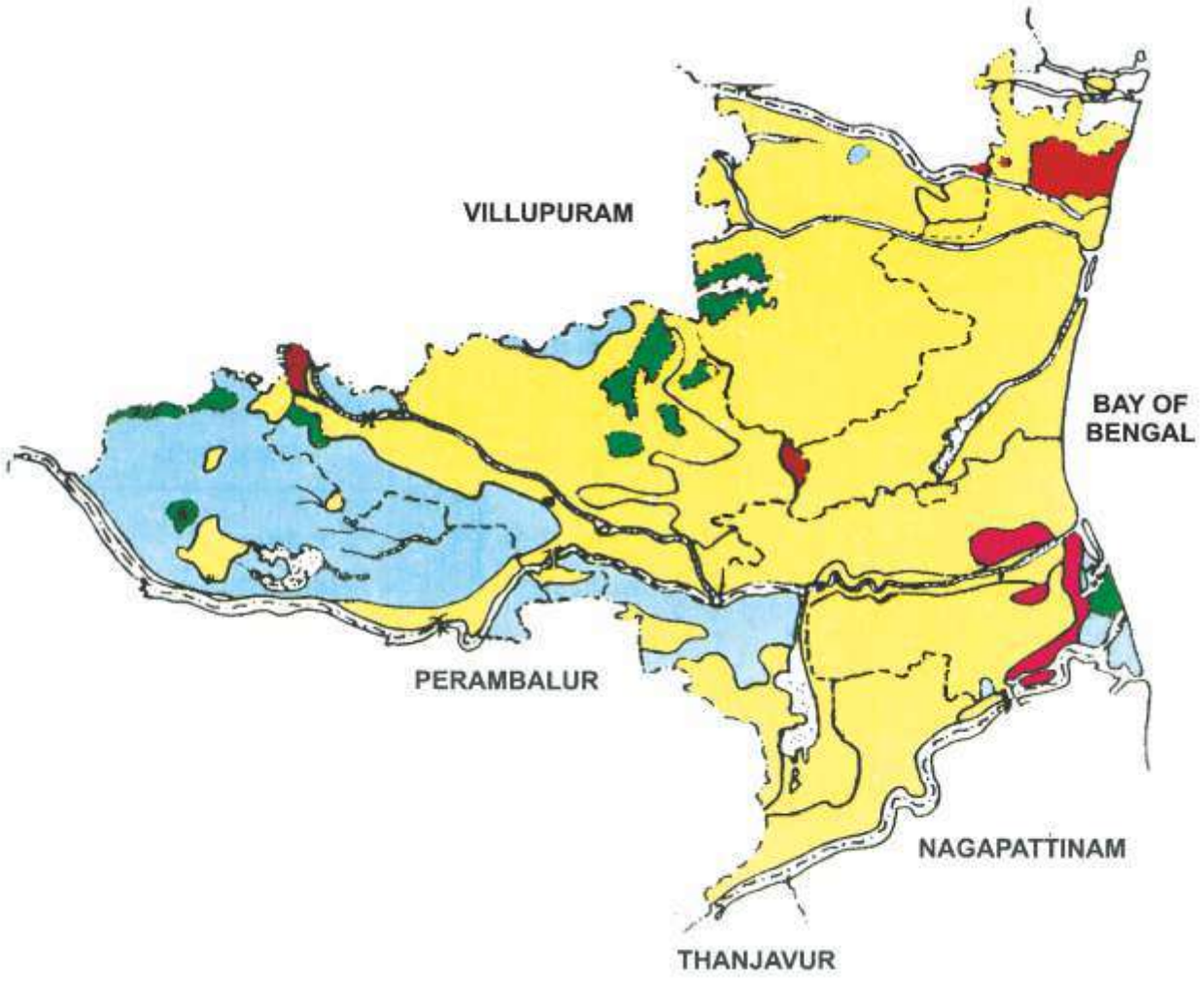
SUITABILITY FOR SUGARCANE

Well drained soils, high temperature, irrigation and fertility are the major requisites for sugarcane. Variations in soil result a wide range in the suitability ratings for sugarcane. Soils of Adanur series appear to support sugarcane very well. constraints are due to calcareousness / alkalinity.

Class	Soil Series	Area in ha (%)
1. Higly Suitable	Adanur	7203 (1.97)
2. Moderately Suitable	Padugai Pattukottai, Vadathesasalur Vanur Arasanatham Pulavanur Vadapudupet Uchimedu Mangadu	173645 (47.21)
3. Marginaly Suitable	Kondal Valuthalakudi Tiruvengadu Vallam Madukkur Vadathesasalur Lalapettai Ammapettai	154120 (41.90)
4. Temporarily not suitable	Pachol Mahabalipuram	1341 (0.37)

SUITABILITY FOR SUGARCANE

CUDDALORE DISTRICT

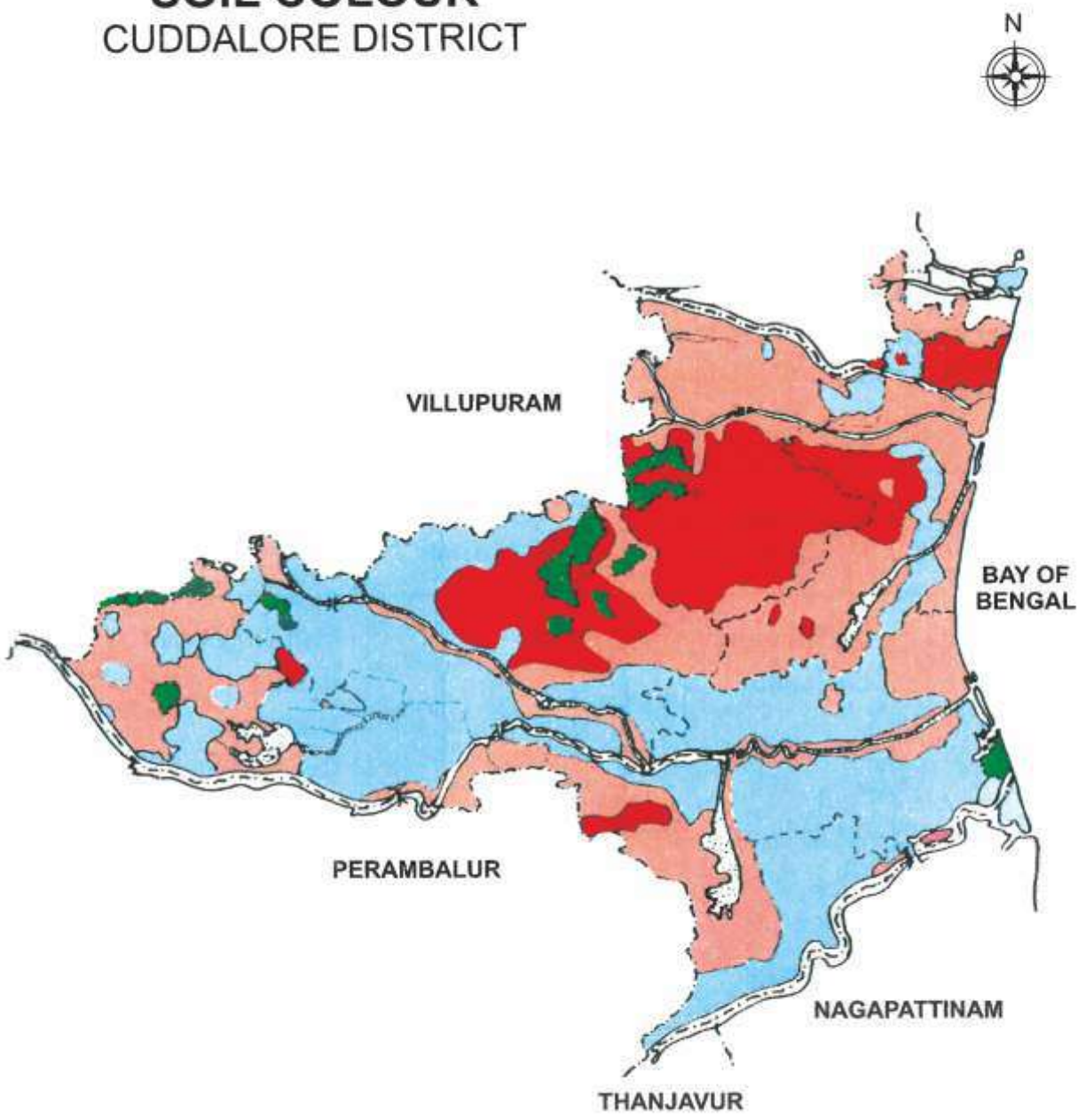


SOIL COLOUR

Soil color, an important physical characteristic is due to either mineral matter or organic matter or admixture of both. It indicates soil conditioning; dark colours are suggestive of content and stage of decomposition of organic matter, sodium saturation, presence of manganese etc. Whereas red, yellow or brown colours are related to the levels of oxidation, hydration and diffusion of iron oxides. Soil series are grouped under three colours namely red, brown and gray as shown below.

Red Soils	Brown Soils	Gray Soils
Vadalapakkam Vallam Vadathesasalur	Vadupudupet Pulavanur Mangadu Mahabalipuram Uchimedu Valuthalakudi Madukkur Pattukottai Tiruvengadu Padugai Pachol Lalapettai	Kondal Ammapettai Arasanatham Adanur Vanur
52675 ha **14.32 %**	**140393 ha** **38.17 %**	**143241 ha** **38.95 %**

SOIL COLOUR
CUDDALORE DISTRICT

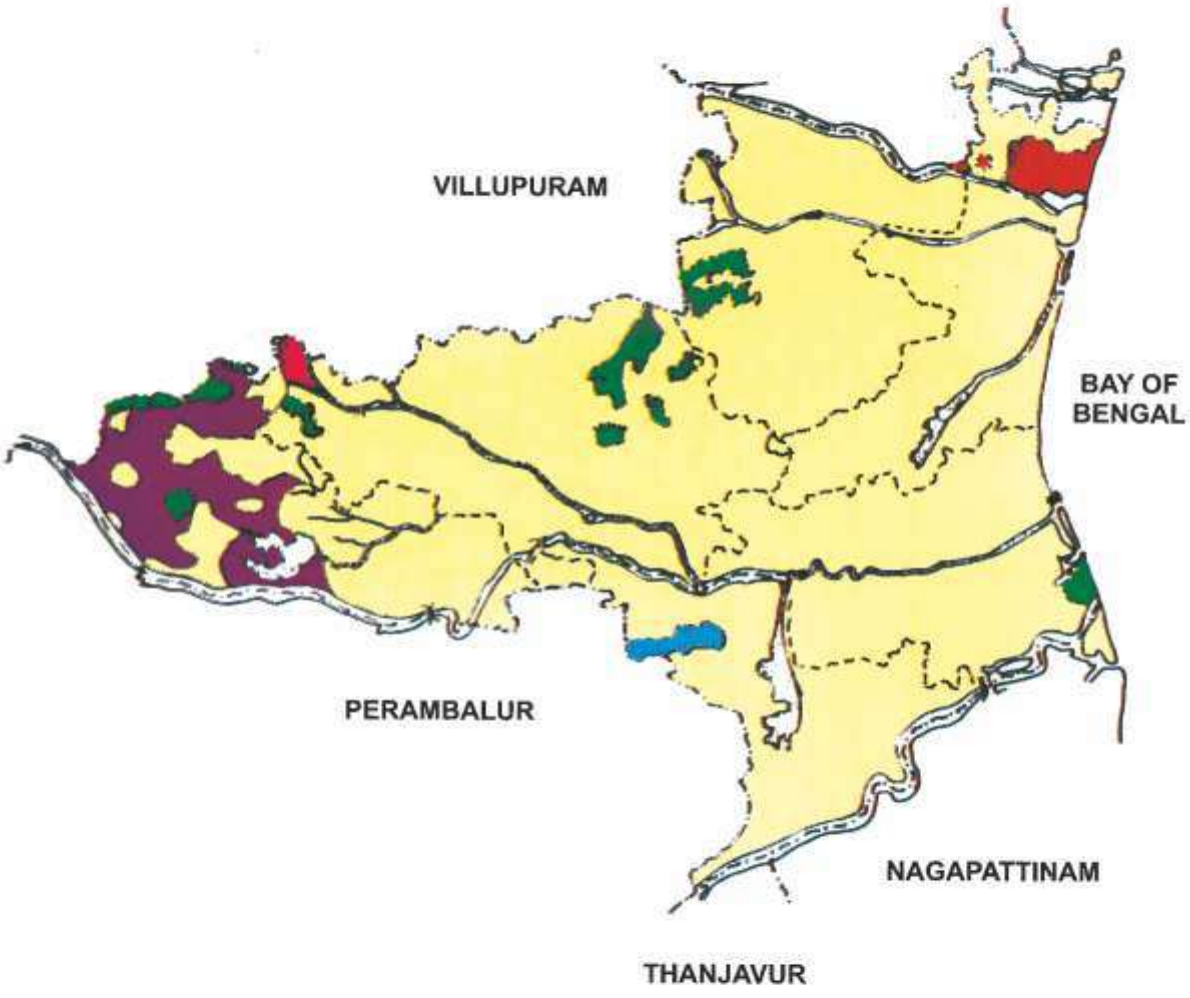


DEPTH

Effective soil depth refers to the thickness of soil / solum effecting root development of crops, nutrient availability in soil and available water capacity. Depth appears to be a constraint in the soils of Pachol series only as far as agricultural land use in concerned.

Shallow (10-25 cm)	Moderately Deep (25-50 cm)	Deep (50-100 cm)	Very Deep (Above 100 cm)
Pachol	Vadathesasalur Lalapettai	Vallam	Mahabalipuram Kondal Madukkur Valuthalakudi Pattukottai Adanur Tiruvengadu Padugai Vadapudupet Vadalapakkam Ammapettai Arasanatham Pulavanur Mangadu Uchimedu Vanur
1341 ha **0.37%**	**22168 ha** **6.03 %**	**1693 ha** **0.46 %**	**311107 ha** **84.59 %**

DEPTH
CUDDALORE DISTRICT

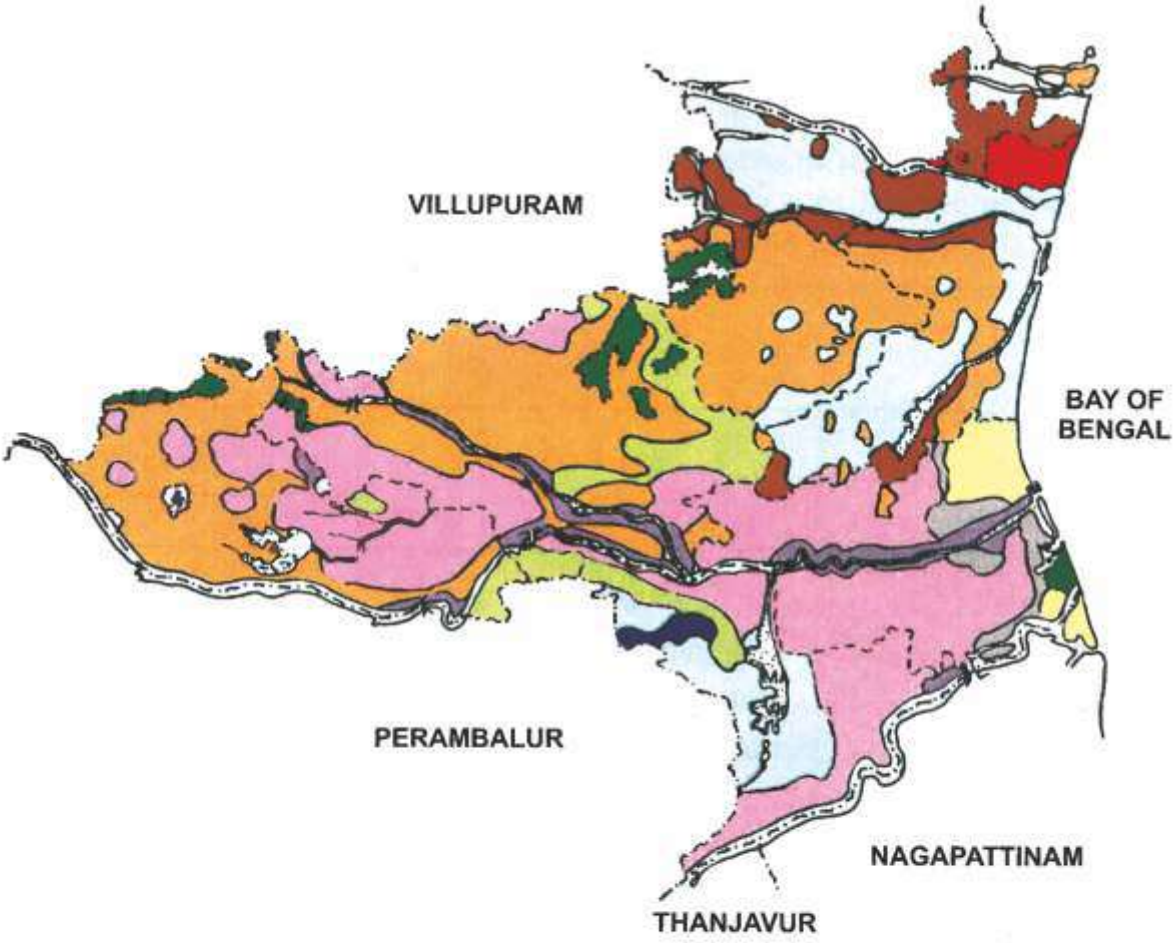


SURFACE TEXTURE

The texture of surface layer to a depth of 25 cm is most dispensable for use by crop plants for their productivity. Texture reveals the physical composition of soil, the admixture of silt, sand and clay. Texture plays important role in reaction, drainage, nutrients retention and uptake, moisture, physico chemical and biological activities etc.

Surface Texture	Soil Series	Area	
		ha	%
1. Sand	Valuthalakudi	9657	2.63
2. Loamy sand	Padugai Vadathesasalur Mahabalipuram	16565	4.50
3. Sandy loam	Vadapudupet Mangadu Pattukottai	56791	15.44
4. Sandy clay loam	Vadalapakkam Arasanatham Uchimedu Vanur Pachol Lalapettai	99433	27.03
5. Sandy clay	Kondal	95941	26.09
6. Gravelly clay loam	Vallam	1693	0.46
7. Silty clay	Ammapettai Pulavanur	22564	6.14
8. Silty clay loam	Madukkur	17620	4.79
9. Clay loam	Tiruvengadu Adanur	8090	2.19

SURFACE TEXTURE
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- FOREST BOUNDARY
- PONDICHERRY
- WATER BODY

LEGEND

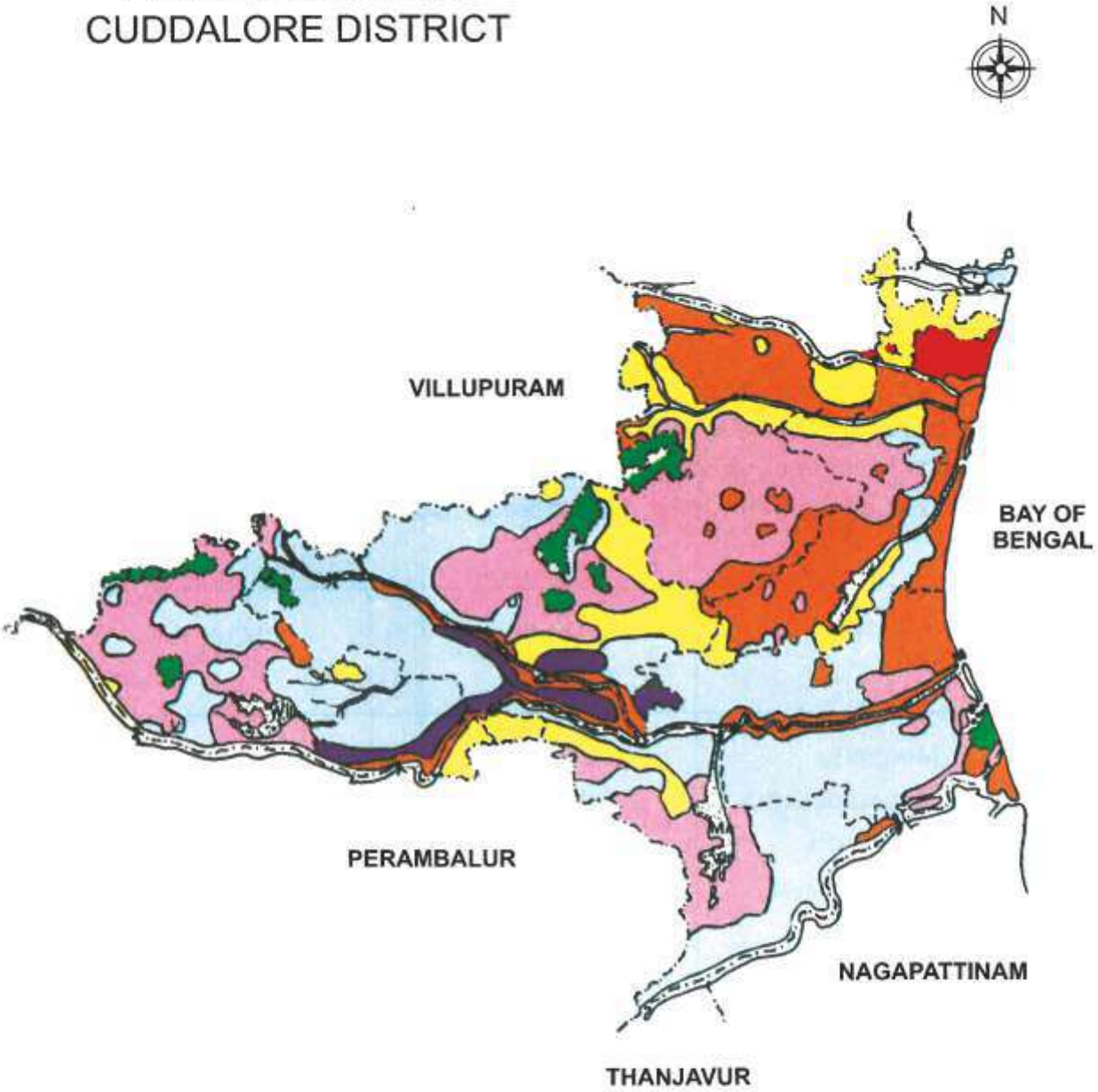
- SAND
- LOAMY SAND
- SANDY LOAM
- SANDY CLAY LOAM
- SANDY CLAY
- GRAVELLY CLAY LOAM
- SILTY CLAY
- SILTY CLAY LOAM
- CLAY LOAM

PERMEABILITY

This refers to the rate of intake of water through soil column or the amount of water that would move downwards. The degree of permeability plays an important role in the natural drainage of that area. Soils with moderately slow / slow permeability are likely to cause drainage problems as the permeabilty decreases with incease in fine texture or clay content.

Class	Soil Series	Area	
		ha	%
1. Rapid	Vadapudupet Mangadu Mahabalipuram Valuthalakudi Vadathesasalur Padugai	70137	19.07
2. Moderately rapid	Vadalapakkam Uchimedu Pattukottai Adanur Pachol Lalapettai	93524	25.43
3. Moderate	Vanur	7955	2.16
4. Moderately slow	Arasanatham Vallam Tiruvengadu Kondal	124509	33.85
5. Slow	Ammapettai Pulavanur Madukkur	40184	10.93

PERMEABILITY
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- FOREST BOUNDARY
- PONDICHERRY
- WATER BODY

LEGEND

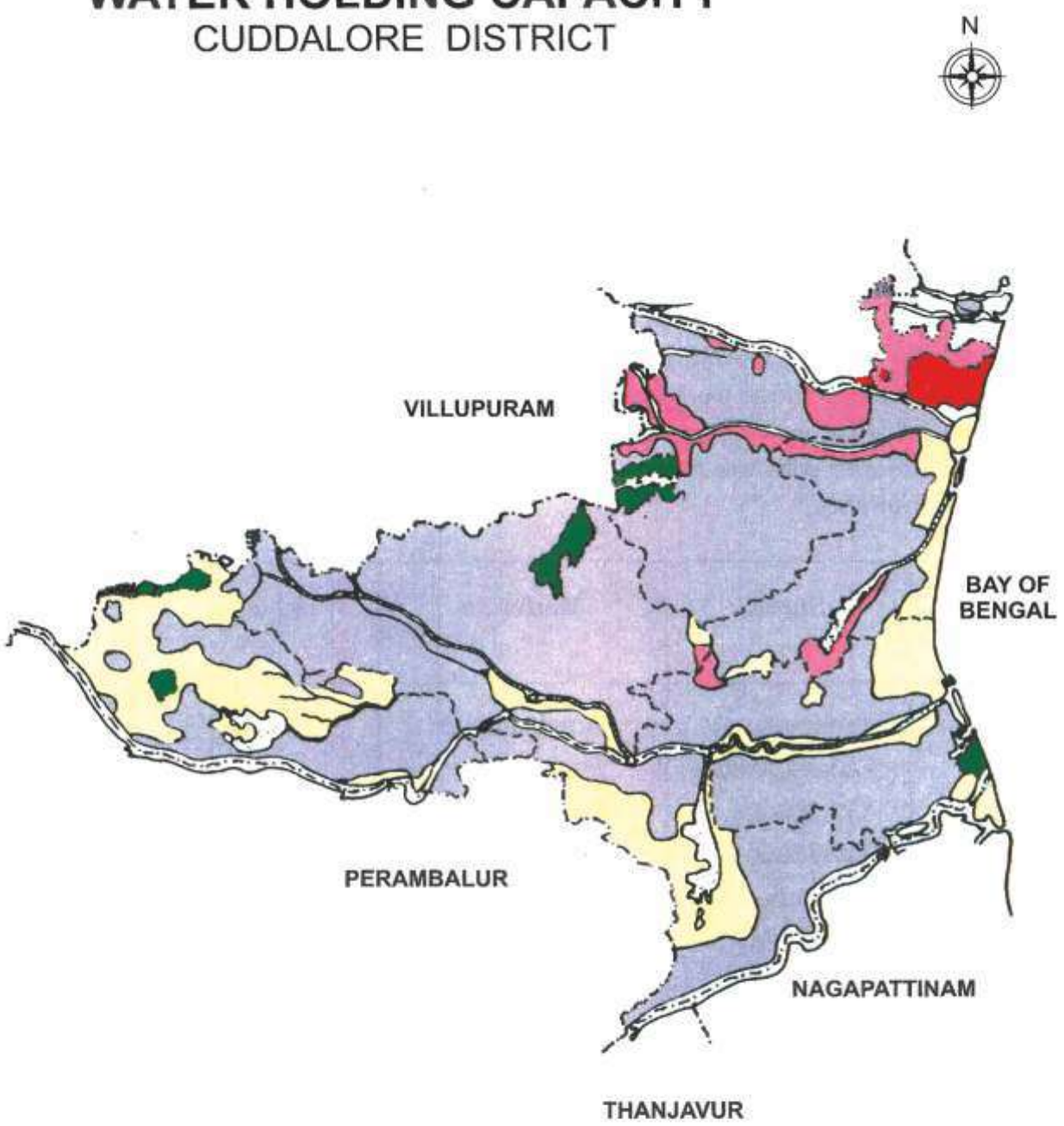
- RAPID
- MODERATELY RAPID
- MODERATE
- MODERATELY SLOW
- SLOW

WATER HOLDING CAPACITY

The capacity of soil to hold water is termed as waterholding capacity, which depends on the texture of soil. Light textured or sandy soils possess low water holding capacity and their retention hence is poor. Water holding capacity is a key factor to be considered in scheduling irrigation.

Low	Medium	High
Mangadu Mahapalipuram Uchimedu Valuthalakudi Pattukottai Vallam Vadathesasalur Padugai Pachol Lalapettai	Vadapudupet Vadalapakkam Arasanatham Madukkur Adanur Tiruvengadu Kondal Vanur	Ammapettai Pulavanur
72307 ha **19.66 %**	**241438 ha** **65.65 %**	**40184 ha** **10.93 %**

WATER HOLDING CAPACITY
CUDDALORE DISTRICT

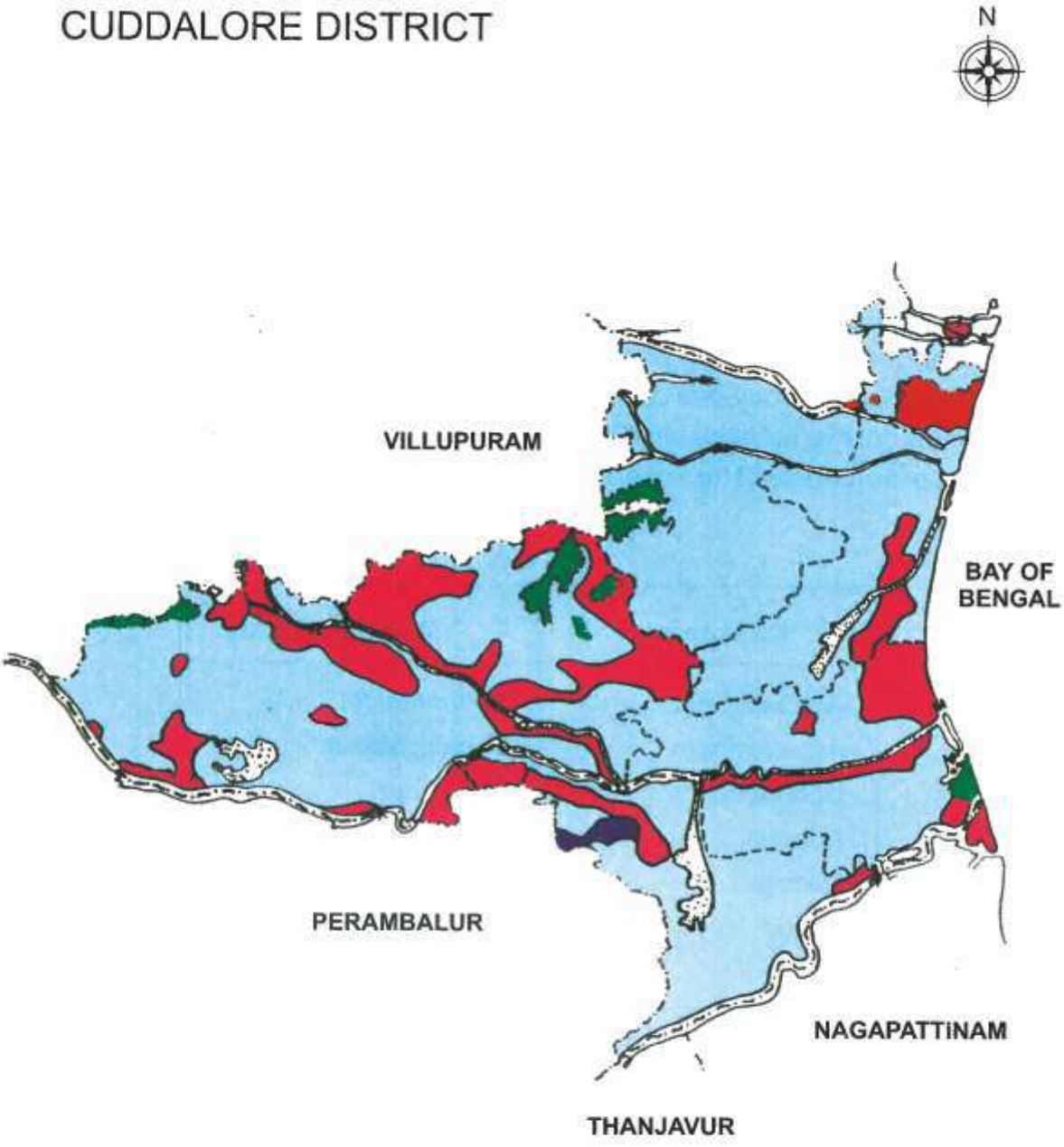


EROSION

Removal of soil from earth's surface by water or wind or both disturb the landscape and affect the fertility status of soil and also land use. Erosion also reduces soil depth. Soil erosion due to water is widespread and the wind erosion is restricted to the soils of Pachol, Madukkur, Padugai and Valuthalakudi series during strong winds. Slight erosion is associated with removal of top soil in sheets and formation of slight rills. Moderate erosion is manifested with the rill and gully formation. Severe erosion takes away the 'A' horizon.

Slight	Moderate	Severe
Vadapudupet Vadalapakkam Ammapettai Pulavanur Mangadu Mahabalipuram Uchimedu Pattukottai Adanur Tiruvengadu Vadathesasalur Kondal Vanur Lalapettai	Arasanatham Pachol Madukkur Padugai Valuthalakudi	Vallam
264051 ha **71.78 %**	**70565 ha** **19.19 %**	**1693 ha** **0.46 %**

EROSION
CUDDALORE DISTRICT

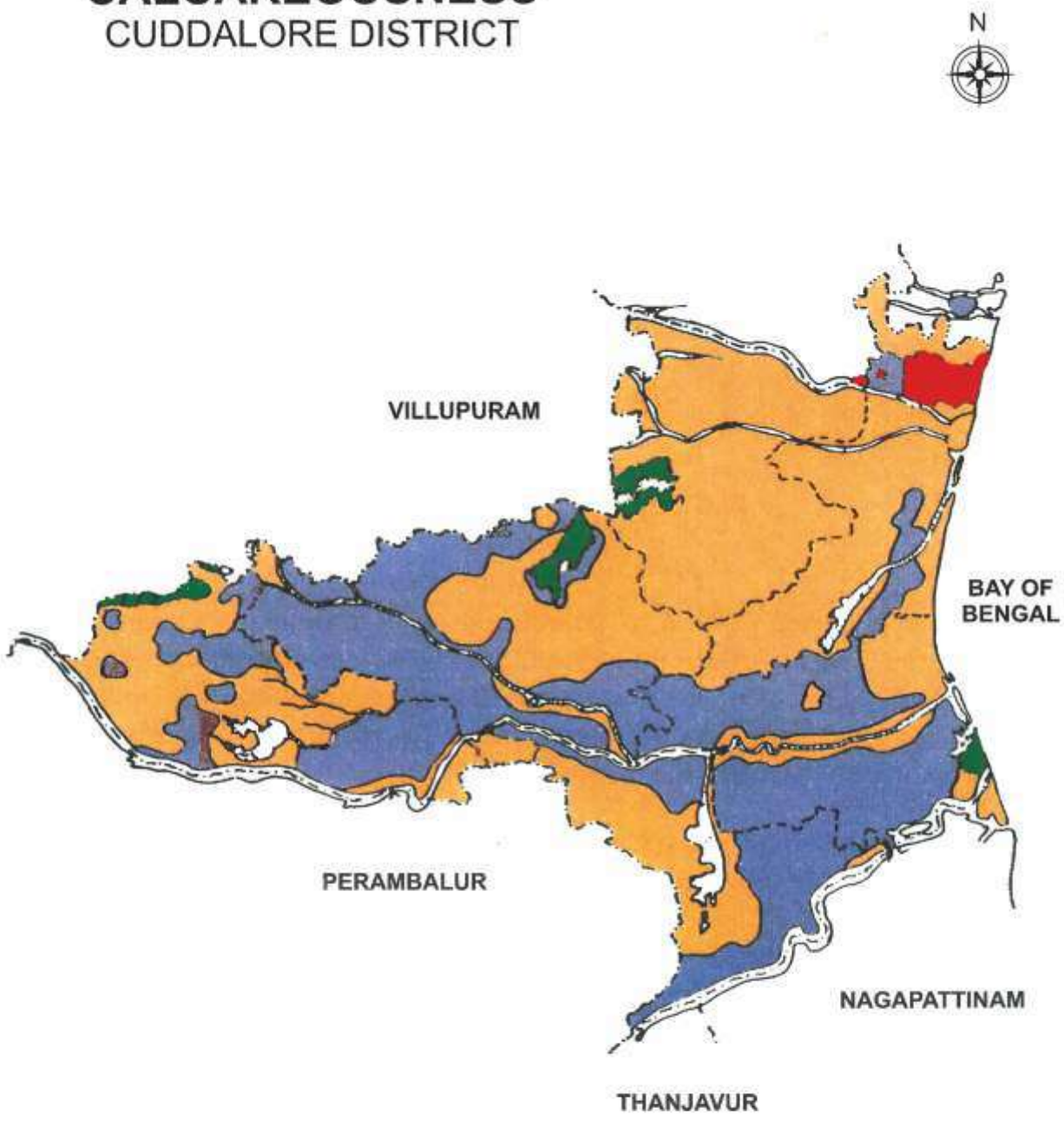


CALCAREOUSNESS

Calcareousness is due to the presence of calcium carbonate content and the higher concentration affect yield of crops often by increasing the pH. Accelerated rate of decomposition of organic matter, loss of nitrogen through volatilisation, low availability of potash, fixation of phosphorus, deficiencies of Zinc, Iron, Manganese and Boron etc are the nutritional imbalances caused by calcareousness. The severity of calcareousness, however, is low.

Calcareous	Non-calcareous
Ammapettai Arasanatham Uchimedu Adanur Kondal Vanur	Vadapudupet Vadalapakkam Pulavanur Mangadu Mahabalipuram Valuthalakudi Madukkur Pattukottai Vallam Tiruvengadu Vadathesasalur Padugai Pachol Lalapettai
143407 ha **38.99 %**	**192902 ha** **52.44 %**

CALCAREOUSNESS
CUDDALORE DISTRICT



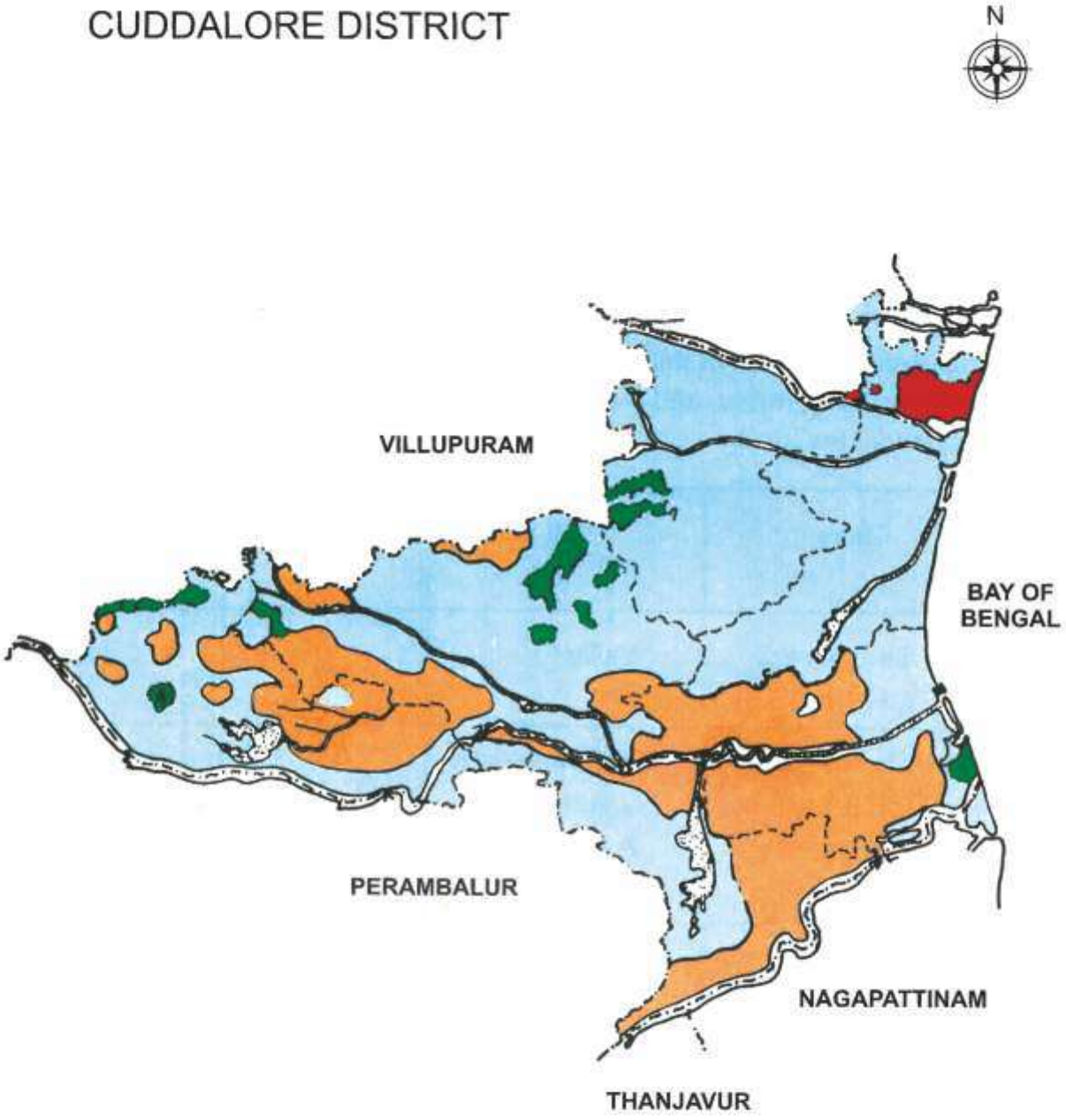
SALINITY

The concentration of soluable salts is termed as salinity and measured in terms of electrical conductivity. The concentration of soluble salts controls the osmotic pressure of soil solution and thereby the nutrient uptake by plant is decided. In general, salinity hazard is not posing any threat to crop growth in Cuddalore district.

All the soil series are found to be non saline which produce no harmful effect on the crop growth and the productivity is not impaired.

However, limited occurrences of salinity may be present in the soils of Kondal series and along the coastal zone.

SALINITY
CUDDALORE DISTRICT



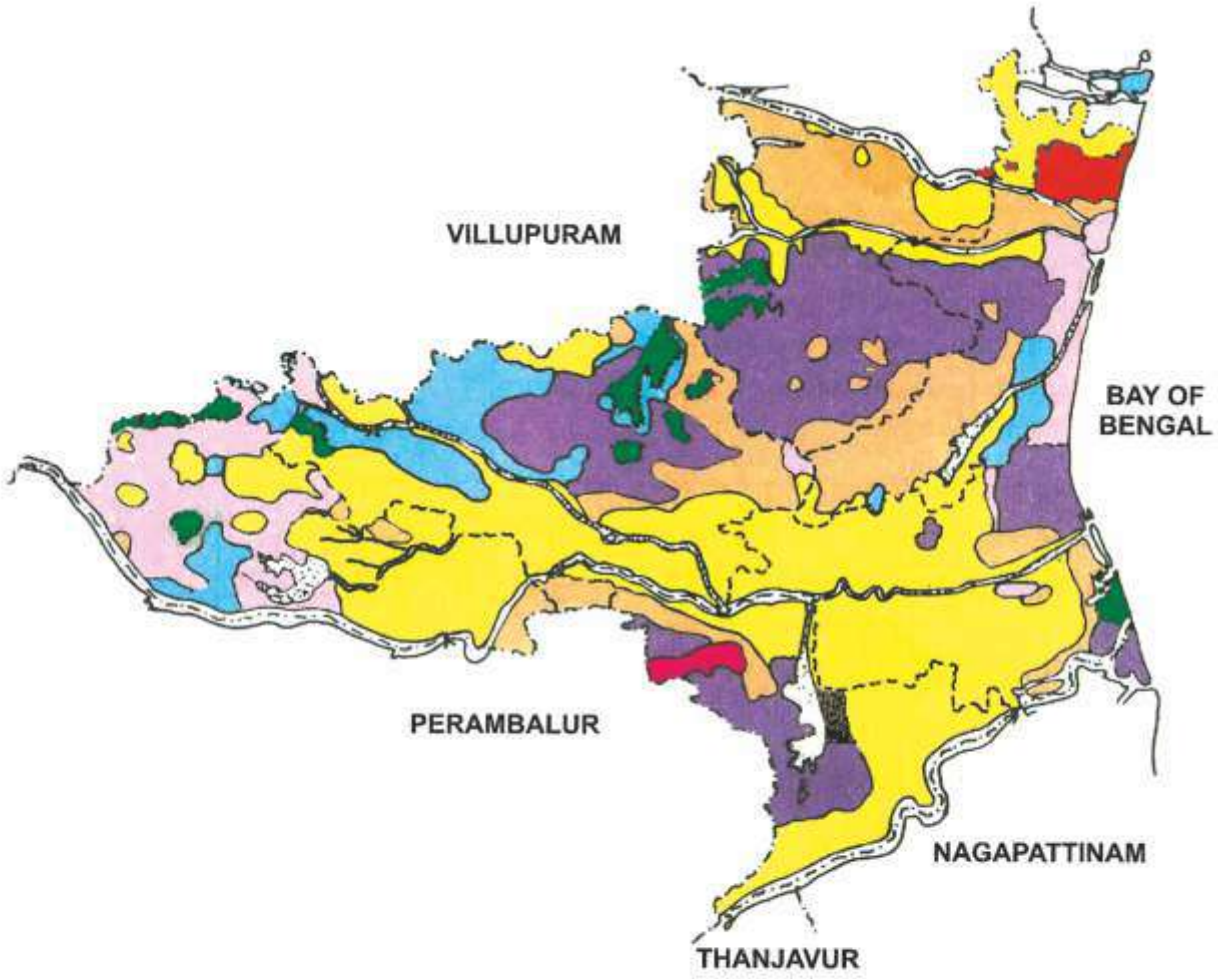
REACTION

The reciprocal of hydrogen concentration of a soil is reffered as soil reaction (pH). The availability and the effect of many plant nutrients depend to a large extent on the the prevailing pH of soil. 6 to 7 pH is considered to be the most favourable range for crop growth.

Acidity is seen in the soils of Vallam series and alkalinity built up in the soils of Uchimedu and Arasanatham, which may require adequate reclamatory measures.

Class	Soil Series	Area	
		ha	%
1. Strongly acid (pH 5.1 to 5.5)	Vallam	1693	0.46
2. Slightly Acid (pH 6.1 to 6.5)	Vadalapakkam Valuthalakudi Pattukottai Mahabalipuram	72909	19.82
3. Neutral (pH 6.6 to 7.3)	Mangadu Tiruvengadu Vadathesasalur Pachol Lalapettai	32843	8.93
4. Mildly alkaline (pH 7.4 to 8.0)	Vadapudupet Madukkur Adanur	60291	16.39
5. Moderately alkaline (pH 8.1 to 8.4)	Kondal, Pulavanur Ammapettai Vanur	142419	38.72
6. Strongly alkaline (pH 8.5 to 9.0)	Uchimedu Arasanatham	26154	7.11

SOIL REACTION
CUDDALORE DISTRICT



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- FOREST BOUNDARY
- PONDICHERRY
- WATER BODY

LEGEND

- STRONGLY ACID
- SLIGHTLY ACID
- NEUTRAL
- MILDLY ALKALINE
- MODERATELY ALKALINE
- STRONGLY ALKALINE

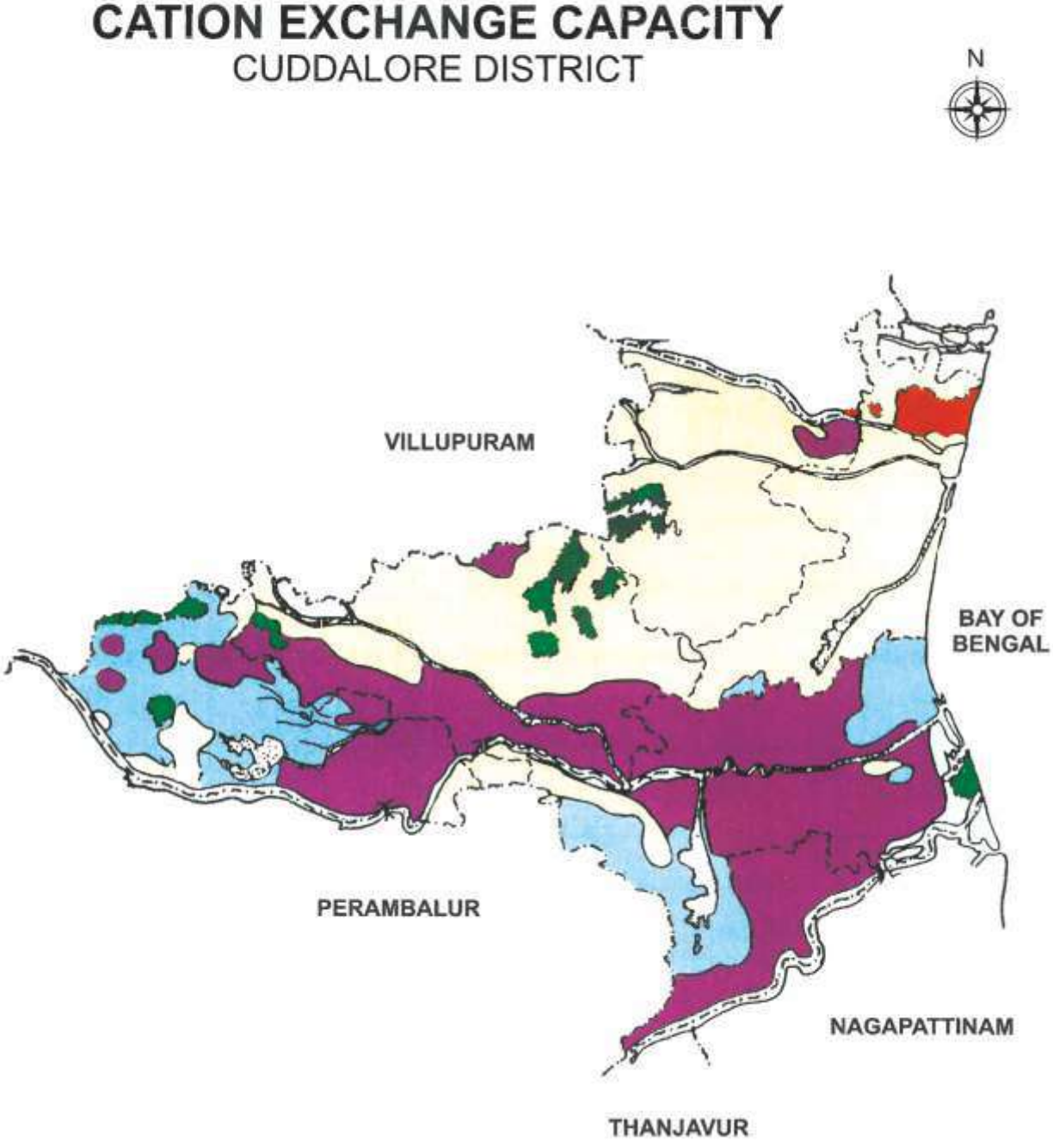
CATION EXCHANGE CAPACITY

The nutrient supply capacity of soil to plant is determined by the cation exchange capacity (CEC), an index of soil fertility. CEC depends on the clay content, clay mineralogy and organic matter content. Higher the CEC, the nutrient supply potential is also higher. Low CEC reduces the fertiliser use efficiency especially nitrogen and potassium.

Low (10 meq)	Medium (11-25 meq)	High (> 25 meq)
Mahabalipuram Uchimedu Valuthalakudi Pattukottai Adanur Vallam Vadathesasalur Pachol Lalapettai	Vadapudupet Vadalapakkam Arasanatham Pulavanur Mangadu Madukkur Tiruvengadu Padugai	Ammapettai Kondal Vanur
55104 ha **14.98 %**	**171155 ha** **46.54 %**	**110050 ha** **29.92 %**

CATION EXCHANGE CAPACITY

CUDDALORE DISTRICT



SOILS

CHIDAMBARAM TALUK

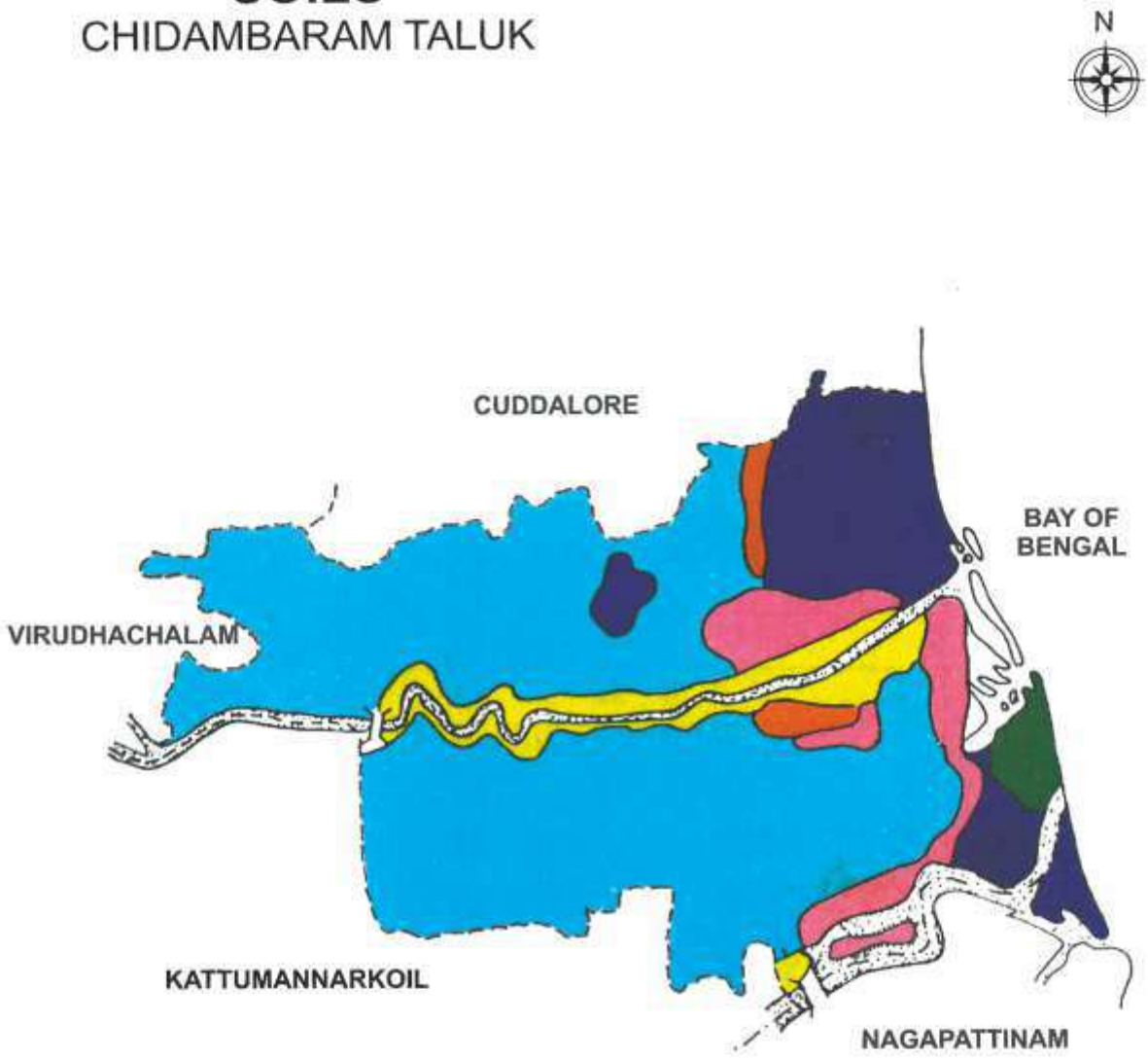
Five soil series, falling under the soil orders of Entisols, Inceptisols and Vertisols, are found to occur.

Soil associations are seldom present.

Kondal series (60%) is the predominant one followed by Valuthalakudi (15%).

Soil order	Soil Series	Symbol	ha	%
Entisols	Valuthalakudi	Vld	9657	14.87
	Padugai	Pdg	5585	8.61
Inceptisols	Adanur	Adn	7203	11.10
	Tiruvengadu	Tvg	887	1.38
Vertisols	Kondal	Knd	39879	61.4
	Waterbodies etc		1671	2.58
	Total		**64882**	**100**

SOILS
CHIDAMBARAM TALUK



VILLAGEWISE FERTILITY STATUS AND DOMINANT SOIL SERIES

CHIDAMBARAM TALUK

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
BHUVANAGIRI PANCHAYAT UNION				
1. A.Thivaraganatham	66	28	87	Knd, Pdg
2. Aadhanur	77	15	94	Knd
3. Agara Alambadi	80	31	105	Knd
4. Ambapuram	68	37	110	Knd
5. Anaivaari	96	23	118	Knd
6. Azhichikudi	58	72	123	Pdg, Knd
7. Boothavirayanpettai	77	50	180	Pdg
8. B. Sitheri	72	40	102	Knd
9. B. Udayur	94	36	102	
10. C. Alambadi	82	25	126	
11. C. Mallur	61	35	68	
12. C. Narkunam	86	40	78	
13. Ellaikudi	65	32	109	Knd
14. Irumbur	111	57	108	Knd
15. Jeyamkondan	71	42	108	Knd
16. Kilavaddikatham	94	51	110	Pdg, Knd
17. Kathazhai	50	28	100	
18. Koolbhuvanagiri	76	43	110	Knd, Pdg
19. Keelvalayamadevi	63	36	100	Knd
20. K. Moongilaadi	77	27	98	Tvg, Pdg
21. Kolakudi	65	17	122	Knd
22. Kummudimoolai	71	45	122	Knd
23. Laalpuram	70	35	102	Knd
24. Manjakkollai	90	34	123	Vld, Adn
25. Maruthur	59	60	123	Knd
26. Melanuvanupattu	80	43	96	Knd

Village		Fertility Status (kg/ac)			Dominant Soil Series
		N	P	K	
27.	Melbuvanagiri	61	28	96	Pdg, Knd
28.	Melehokkanathanpettai	75	30	108	Knd
29.	Melmanakudi	68	30	108	Knd
30.	M. Moongilaadi	62	56	123	Pdg, Tvg
31.	Melvalayamadevi	58	33	110	Knd
32.	Miralur	56	73	117	Knd, Pdg
33.	Nathamedu	57	54	114	Knd, Vld
34.	Nellikollai	94	60	132	Knd
35.	Pazhuthankarai	88	26	99	
36.	Pennalur	92	68	108	Knd
37.	P. Narkunam	80	37	81	
38.	Prasannaramapuram	83	55	90	Knd
39.	Saathapaadi	61	15	173	Knd
40.	Sathiyathoppu	104	54	150	Knd, Pdg
41.	Sivapadi	88	34	94	Knd
42.	Suthukuzhi	80	40	96	Pdg, Knd
43.	Thenkrishnapuram	77	26	120	Knd, Vld
44.	Thenthalaikkulam	91	37	94	
45.	Thillainayagapuram	82	59	110	Knd, Adn
46.	T. Thittai	82	58	126	
47.	Thurinjikollai	102	74	90	Knd
48.	Vluthur	59	75	120	Knd
49.	Vadakrishnapuram	78	32	133	Knd
50.	Vadathalaikkulam	99	34	117	
51.	Vandurayanpettai	62	29	130	Knd, Pdg
52.	Vattarayannettu	73	40	108	Knd, Pdg
53.	Veeramudayanatham	78	36	69	Knd
54.	V. Thillai	73	34	85	

Village		Fertility Status (kg/ac)			Dominant Soil Series
		N	P	K	
KEERAPALAYAM PANCHAYAT UNION					
1.	A. Puliangudi	84	43	102	Knd
2.	Ayyanarakkaramangalam	96	36	86	Knd
3.	Ayyapettai	84	27	110	Knd, Pdg
4.	Chengalmedu	78	40	79	Knd
5.	C. Melavanniyur	88	29	100	
6.	C. Veeracholagam	74	27	118	Knd
7.	Devinkudi	66	26	138	Knd
8.	Ennagaram	70	38	110	Knd
9.	Easanai	78	29	84	Knd
10.	Kizhiyanoor	96	26	102	Knd, Pdg
11.	Kannankudi	78	29	120	Knd
12.	Kellnatham	64	41	110	Knd
13.	Keerapalayam	84	31	98	Knd, Pdg
14.	Kodiyalam	58	40	104	Knd
15.	Kulpadi	96	28	34	Knd
16.	Madhuranthaganallur	56	63	98	Knd
17.	Manakudiyaniruppu	64	40	82	Knd
18.	Manalur	74	25	64	Knd
19.	Mugaiyur	56	31	100	Knd
20.	Odakkanallur	82	34	102	Knd
21.	Orathur	82	30	100	Knd, Pdg
22.	Palayamserthangudi	74	33	108	Knd, Pdg
23.	Pannapattu	56	53	98	Knd
24.	Parathur	83	15	244	Knd, Pdg

Village		Fertility Status (kg/ac)			Dominant Soil Series
		N	P	K	
25.	Paripuranatham	58	33	84	Knd
26.	Perungalur	74	37	100	Knd
27.	Poonthottam	74	57	96	Knd
28.	Pudhankudi	66	25	64	Knd
29.	Sathamangalam	74	19	78	Knd, Pdg
30.	Sakkankudi	57	50	129	Knd
31.	Sethuveer	96	34	72	Knd
32.	Thaathampettai	74	38	72	Knd
33.	Tharamoor	60	31	110	
34.	Thenharirajapuram	63	50	125	Knd
35.	Therkupalayam	68	30	100	
36.	Thirupaninatham	72	27	78	Knd
37.	Thunisiramedu	70	28	95	Knd
38.	TR. Madapuram	64	30	98	
39.	TR. Neduncheri	63	14	96	
40.	Vaakur	64	25	78	Knd
41.	Vadacharirajapuram	68	30	84	Knd, Pdg
42.	Vadakuvirudhangan	84	29	84	
43.	Vadapakkam	74	30	110	Knd
44.	Vayalur	96	30	84	Knd
45.	Velliyankadu	74	27	78	
46.	Vazhakotai	68	30	112	
47.	Veyyalur	96	34	110	Knd
48.	Vilagam	80	11	95	

Village		Fertility Status (kg/ac)			Dominant Soil Series
		N	P	K	
KUMARATCHI PANCHAYAT UNION					
1.	Alkondanatham	70	19	138	Knd
2.	Athipattu	78	20	116	Knd
3.	C. Arasur	78	13	183	
4.	Edaiyur	75	20	116	Knd
5.	Elangampur	47	24	85	Knd
6.	Elleri East	74	19	72	Knd, Mdk
7.	Elleri West	76	13	78	Knd, Mdk
8.	Kanchivai	70	20	120	Knd
9.	Karuppur	62	17	141	Pdg
10.	Kil Adamankudi	78	15	106	Knd
11.	Kilkundalapadi	80	50	102	
12.	Kilnedumbur	79	28	122	Knd
13.	Kil Vanniyur	76	20	102	Knd
14.	Kollimalai Melpadi	95	12	120	Mdk
15.	Koothan Koil	60	17	99	Pkt, Vlm
16.	Kothavasal	87	24	114	Knd
17.	Kollimali Keelpadi	95	15	145	Knd, Mdk
18.	Koothur	67	19	120	Knd
19.	Keelaparuthikudi	68	14	124	Knd
20.	Kelakarai	64	14	162	Knd
21.	Kumaratch East	86	26	134	Knd
22.	Kumarachi West	78	22	126	Knd
23.	Lalpettai	81	33	100	Mdk
24.	Laxmikudi	76	18	146	Knd
25.	Madarchudamani	71	15	115	Knd
26.	Meiyathur	78	20	96	Knd
27.	M. Arasur	88	21	108	Knd
28.	M. Kollankudi	60	17	99	Mdk
29.	M. Kolakudi	77	27	96	Mdk

Village		Fertility Status (kg/ac)			Dominant Soil Series
		N	P	K	
30.	Melaparuthikudi	76	25	105	Knd
31.	Melnedumbur	77	33	81	Knd
32.	Mel Vanniyur	62	17	116	Knd
33.	M. Puliyankudi	86	18	142	Mdk
34.	Mulankudi	77	16	120	Knd
35.	Naduthittu	30	14	130	Knd
36.	Nallamputhur	74	13	92	Knd
37.	Nandimangalam	72	22	120	Knd
38.	Neivasal	77	20	120	Knd
39.	Oppalanchimedu	70	15	120	Knd
40.	Parivilagan	85	34	101	Knd
41.	Puliyanthangal	66	20	96	Knd
42.	Radhanallur	75	19	132	Knd
43.	Salathiram	66	26	90	Knd, Mdk
44.	Savarajanpettai	93	17	99	Knd
45.	Sivakkam	77	38	133	Knd
46.	Suravilandur	78	22	120	Knd
47.	Thennur	88	15	110	Knd
48.	Therkumangudi	77	21	120	Knd, Pdg
49.	Thirumaraiyur	82	25	142	Knd
50.	Vadamur	73	15	130	Knd
51.	Vadakkumarangudi	81	18	124	Knd, Pdg
52.	Vauvalthoppu	70	15	60	Knd
53.	Vennaiyur	85	16	106	Knd
54.	Vetchiyur	87	17	120	Knd
55.	Vilathur Thirupariyapuram	65	15	96	Knd
56.	Veeranatham	73	16	129	Knd
57.	Vellur	84	12	113	Knd

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
PORTNOVA PANCHAYAT UNION				
1. Adhivaraganallur	75	12	104	Knd, Pdg
2. Alumelumangapuram	92	19	73	Knd
3. Ariyagosti	45	29	100	Vld
4. Arunmozhithevan	60	44	85	Adn Vld
5. Ayipuram	83	24	141	And, Knd
6. C. Kothankudi	78	35	119	Knd
7. C. Manambadi	81	51	108	
8. Chinnakumatti	84	25	102	Vld
9. Kanakkarpettai	70	40	112	
10. Kariyamangalam	88	41	108	Knd, Adn
11. Kavarapattu	60	34	154	
12. Keelauvampattu	74	22	110	Adn, Tvg
13. Keelmankkudi	92	39	110	Knd
14. Keelaperambi	60	33	110	Vld, Adn
15. Keelthirukkulipalal	70	25	114	
16. Killai	74	39	100	Vld, Tvg
17. Kodipallam	84	33	104	Knd
18. Kothattai	85	22	110	Vld
19. Kovilampoondi	80	40	102	Knd, And
20. Kumaramangallam	80	41	70	Knd
21. Maduvankarai	68	32	107	Pdg
22. Manikottai	74	30	84	Vld, Tvg
23. Manjakuzhi	72	33	98	Vld, Adn
24. Meedhikudi	72	30	98	Knd
25. Melthirukullipalli	69	24	112	
26. Nanjaimegathuvazkkai	65	33	94	Pdg
27. Nakkaravaradhankudi	56	39	70	Knd
28. Palavathunnam	90	33	84	Vld, Tvg

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
29. Pallipadi	84	28	70	Knd
30. Parangipettai	73	28	112	Knd
31. Periyapattu	81	29	68	Vld
32. Periyakumatti	95	33	102	Vld
33. Pichavaram	65	31	104	Vld
34. Pinnathur	61	26	128	Knd, Adn
35. Poovalai	79	24	100	Knd, Pdg
36. Punjimagathuvazkkai	70	25	98	Pdg
37. Radhvilagam	65	33	110	Knd, Adn
38. Senthirkalli	62	22	98	Vld, Pdg
39. Silambimangalam	64	27	102	Vld
40. Jandavarayan Cholampet	88	40	74	Vld
41. Thachankadu	59	25	94	Vld, Adn
42. Thilluivdangam	92	29	102	Knd, Tvg
43. Uthamacholamangalam	70	33	108	Knd, Adn
44. Vasapudhur	72	27	105	Knd
45. Vayalamoor	79	27	98	Knd
46. Velanigpattu	83	24	80	Vld, Tvg
47. Villianur	60	16	99	Vld

LAND CAPABILITY

CHIDAMBARAM TALUK

Area (ha)	Land capability classification	Soil Series	Limitation
52667 81.17%	II s	Kondal Padugai Adanur	Texture
887 1.37%	III s	Tiruvengadu	Root zone limitations
9657 14.88%	IV es	Valuthalakudi	Erosion

Class

II Good cultivable lands that have few limitations for sustained use under agriculture

III Moderately good cultivable lands that have severe limitations for sustained use under agriculture

IV Marginal Lands that have very severe limitations for sustained use under agriculture

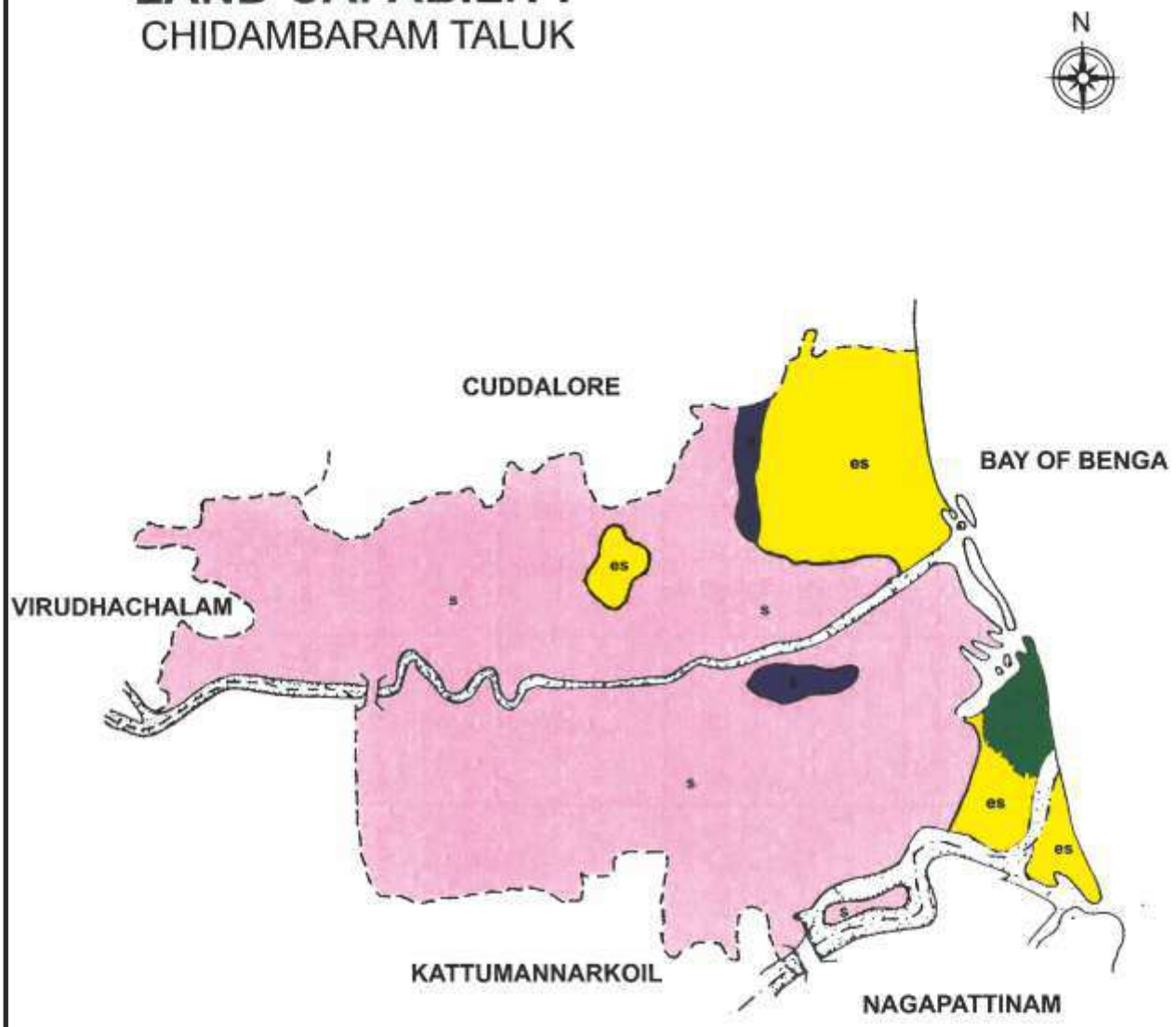
Subclass

s - Root zone limitation

e - Erosion and run off

w - Wetness

LAND CAPABILITY
CHIDAMBARAM TALUK



LEGEND

CLASS

- Good Cultivable Land
- Moderately Good Cultivable Land
- Fairly Good Cultivable Land

SUB CLASS

- s Soil Limitation
- e Erosion and Runoff

REFERENCE

- TALUK BOUNDARY
- COASTAL BOUNDARY
- FOREST BOUNDARY
- WATER BODY

LAND IRRIGABILITY

CHIDAMBARAM TALUK

Area (ha)	Land irrigability classification	Soil Series	Limitation
12788 19.70%	2s	Padugai Adanur	Texture alkalinity drainage
40766 62.83%	2sd	Tiruvengadu Kondal	Texture drainage
9657 14.88%	4s	Valuthalakudi	Texture drainage

Class

2 - Lands that have moderate limitations for sustained use under irrigation.

4 - Lands that have very severe limitations for sustained use under irrigation.

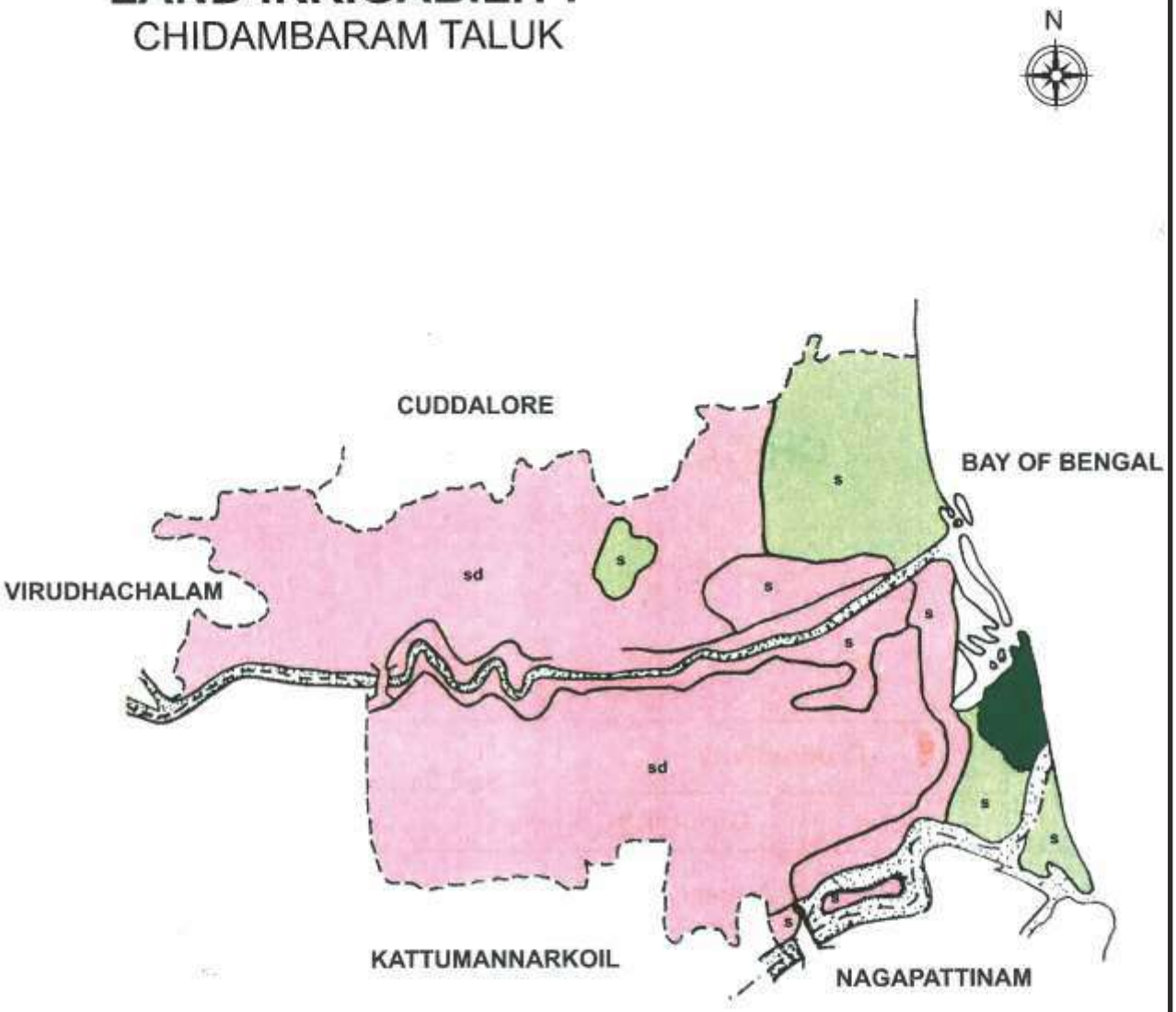
Sub Class

s - Soil limitation

t - Topographical limitation

d - Drainage hazard

LAND IRRIGABILITY
CHIDAMBARAM TALUK



REFERENCE

- TALUK BOUNDARY
- COASTAL BOUNDARY
- FOREST BOUNDARY
- WATER BODY

LEGEND

CLASS

- Moderate Limitation
- Very Severe Limitation

SUB CLASS

- s — Soil Limitation
- d — Drainage Hazard

SOIL PRODUCTIVITY

CHIDAMBARAM TALUK

Area (ha)	Productivity		Soil Series	Needs
	Rating	Grouping		
63211 97.42%	20 - 34	Average	Adanur Kondal Padugai Tiruvengadu Valuthalakudi	Soil reclamation drainage improvement fertility management textural improvement

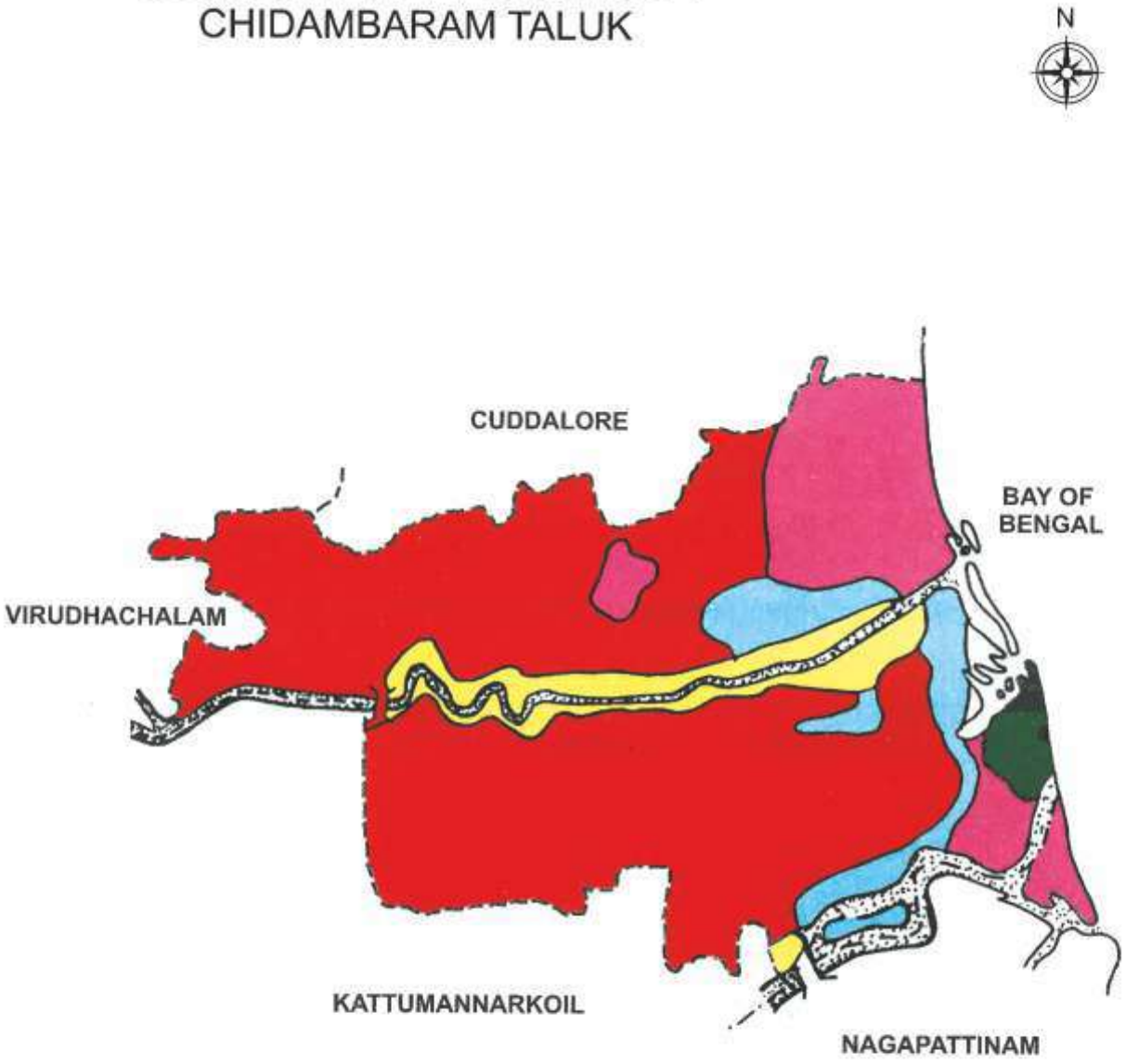
SOIL PRODUCTIVITY
CHIDAMBARAM TALUK

SUITABILITY FOR RICE

CHIDAMBARAM TALUK

Class	Soil Series	Area	
		ha	%
1. Higly suitable	Adanur	7203	11.10
2. Moderately suitable	Kondal Tiruvengadu	40766	62.84
3. Marginaly suitable	Padugai	5585	8.61
4. Temporarily not suitable	Valuthalakudi	9657	14.87

SUITABILITY FOR RICE
CHIDAMBARAM TALUK



SOILS

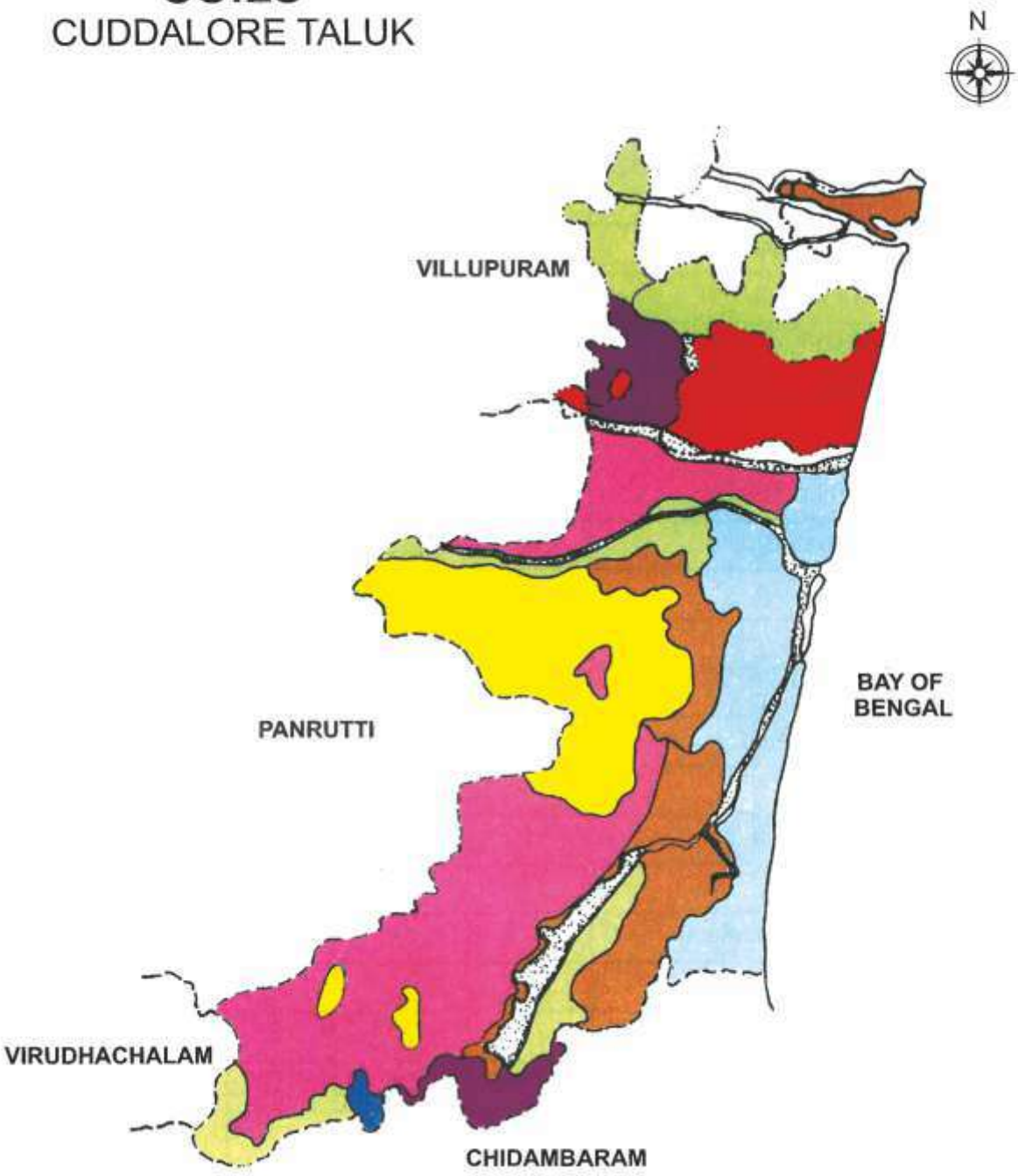
CUDDALORE TALUK

- Eight soil series, coming under the soil orders of Entisols, Inceptisols, Alfisols and Vertisols and their associations were identified.
- Vadapudupet series is the dominant soil series covering % of the total geographical area.
- Mahabalipuram soil series is occurring as assocation.

Soil Order	Soil Series	Symbol	ha	%	Associated Soils*
Entisols	Mahabalipuram	Mbm	Occurring as associations		
Inceptisols	Arasanatham	Anm	5631	9.94	Mgd
	Pulavanur	Plr	10557	18.64	Mbm, Mgd
	Mangadu	Mgd	8447	14.91	Mbm
	Uchimedu	Ucm	166	0.29	—
Alfisols	Vadapudupet	Vdp	17143	30.26	—
	Vadalapakkam	Vdm	9441	16.66	Vdp
Vertisols	Ammapettai	Arop.	3561	6.30	Mbm
	Water bodies etc.		1697	3.00	—
	TOTAL		**56645**	**100**	

* Area of associated soils are included in the respective major soil series.

SOILS
CUDDALORE TALUK



VILLAGE-WISE FERTILITY STATUS AND DOMINANT SOIL SERIES

CUDDALORE TALUK

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
CUDDALORE PANCHAYAT UNION				
1. Annavalli	59	26	64	Vdm
2. Arisiperiyankuppam	63	17	82	Phl
3. Azhagiyanatham	66	14	143	Amp
4. Chellanchori	76	16	34	Vdp
5. Chinnaghanaganakuppam	77	26	100	Plr
6. C.N. Palayam	72	26	112	Vdm
7. Gingeekumarapuram	80	22	90	—
8. Irandayiravilagam	67	14	122	Amp
9. Karaikadu	77	17	91	Vdm
10. Karaimedu	71	12	128	Amp
11. Kalaiyur	77	18	120	Amp
12. Karamanikuppam	90	12	100	Amp
13. Karanapattu	85	14	82	Plr
14. Karuppadithundu	69	15	72	Plr
15. Keelkhinjipattu	74	13	122	Plr
16. Keelkumaramangalam	72	18	124	Vdp, Mbm
17. Kilinjikuppam	71	11	120	Mbm
18. Kudikadu	72	20	100	Mbm, Mgd
19. Kumarapettai	72	21	60	Phl
20. Malayaperumalagaram	71	10	115	—
21. Marudhadu	118	20	160	Vdp
22. Mavadipalayam	75	16	65	Vdm
23. Melakuppam	77	12	139	Vdp
24. Melazhinjipattu	71	14	124	Plr, Mgd
25. Nathampattu	78	20	136	Amp
26. Naduveerapattu	78	20	100	Vdm
27. Nagappanoor	70	12	47	Plr, Ucm

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
28. Nallathur	68	8	130	Vdp
29. Odalapattu	70	12	101	Mbm
30. Otteri	79	12	75	Phl
31. Pacehaiyankuppam	69	10	59	Phl
32. Paderikuppam	55	23	96	Vdp
33. Pallipattu	67	16	132	Amp, Ucm
34. Periyagnanakuppam	72	10	110	Plr
35. Pillali	75	16	105	Vdp
36. Poondiyankuppam	78	11	87	Vdm, Phl
37. Pudukkadai	65	14	137	Mbm
38. Ramapuram	77	18	66	Vdm
39. Sedapalayam	41	14	24	Ucm
40. Singirikudi	70	11	124	Mbm
41. Subbauppalavadi	68	18	112	Pdg
42. Thennampakkam	79	14	82	Amp
43. Thirumanikuzhi	85	17	64	Vdm
44. Thirupanampakkam	63	14	200	Vdp
45. Thiruvandhipuram	68	30	94	Phl, Vdm
46. Thookkanampakkam	70	12	111	Vdp, Amp
47. Thottapattu	69	12	125	Vdp
48. Ulleripattu	76	16	200	Amp
49. Vadapuram (Keelpadi)	155	14	104	Mbm
50. Vanamadevi	75	16	40	Vdm
51. Varakalpattu	75	21	90	Vdp
52. Uchimedu	70	15	175	Ucm
53. Velapakkam	69	26	130	Vdp
54. Vettukulam	75	18	71	Vdm
55. Vilangalpattu	72	21	113	Vdm

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
KURINJIPADI PANCHAYAT UNION				
1. Abatharanapuram	73	10	116	Vdp
2. Adhinarayanapuram	64	18	134	Anm, Mem
3. Adoor Agaram	97	29	120	Vdp, Pdg
4. Agaram	77	17	79	Vdp
5. Alapakkam	68	18	138	Anm, Plr
6. Ambalavanampettai	80	28	73	Vdp.
7. Andarnullipalayam	70	18	127	Mom, Pdg
8. Arukkampattu	69	16	101	Vdp, Mgd
9. Arangamangalam	67	18	105	Vdp
10. Ayikuppam	64	22	78	Vdp
11. Bethunaickenkuppam	72	19	100	Vdp
12. Boodampadi	90	22	71	Pdg, Vdp
13. Gothandaramapuram	66	9	113	Vdp, Ucm
14. Kalkunam	78	12	66	Vdp
15. Kambalimedu	50	18	50	Mom
16. Kanjamanathapuram	72	12	91	Vdp, Ucm
17. Kannadi	78	25	98	Anm, Vdm
18. Karunkuzhi	60	17	98	Vdp, Plr
19. Karuveppambadi	70	14	100	Anm, Mom
20. Kayalapettai	83	16	94	Mom, Pdg
21. Kesavanarayapuram	60	18	100	Vdp
22. Kolakkudi	64	22	97	Plr, Vdm
23. Kothavacheri	75	18	93	Amp
24. Krishnakuppam	50	12	45	Vdp
25. Kundiyanallur	70	12	131	Amp, Anm
26. Kurinjipadi	60	20	50	Vdp
27. Kuruvappanapettai	70	19	100	Vdp
28. Melapudupettai	89	14	120	Vdp, Pgd

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
29. Nainakuppam	57	20	53	Vdp
30. Parvathipuram	86	12	130	Vdp
31. Poonvanikuppam	98	12	50	Mbm, Anm
32. Ranganathapuram	91	18	99	Vdm, Mbm
33. Rajakuppam	62	13	107	Vdp
34. Serakuppam	68	10	78	Vdp
35. Sirupuliyur	78	16	120	Anm, Mbm
36. Thaiyalkanampattinam	60	20	100	Vdp
37. Thambipettai	60	20	120	Vdp
38. Tankur	68	19	103	Anm
39. Theerthangiri	68	19	120	Anm, Mbm
40. Thimiravaithankuppam	177	10	126	Vdp
41. Thiruchepuram	68	13	76	Mbm, Pdg
42. Thiyagavalli	70	12	113	Mbm, Mgd
43. Thondamanathan	55	14	91	Vdp, Mgd, Vdu
44. Thopukollai	72	10	120	Vdp
45. T. Palayam	60	12	72	
46. Vazhuthalampattu	70	13	92	Vdp, Vdm
47. Virupatchi	63	14	124	Vdp

LAND CAPABILITY

CUDDALORE TALUK

Area (ha)	Land capability classification	Soil Series	Limitation
17143 30.26%	II e	Vadapudupet	Erosion & run off
9441 16.66%	II s	Vadalapakkam	Texture
5631 9.94%	II sw	Arasanatham	Wetness
22731 40.13%	III s	Ammapettai Pulavanur Mankadu Uchimedu Mahabalipuram	Root zone limitations texture drainage

Class

II Good cultivable lands that have few limitations for sustained use under agriculture

III Moderately good cultivable lands that have severe limitations for sustained use under agriculture

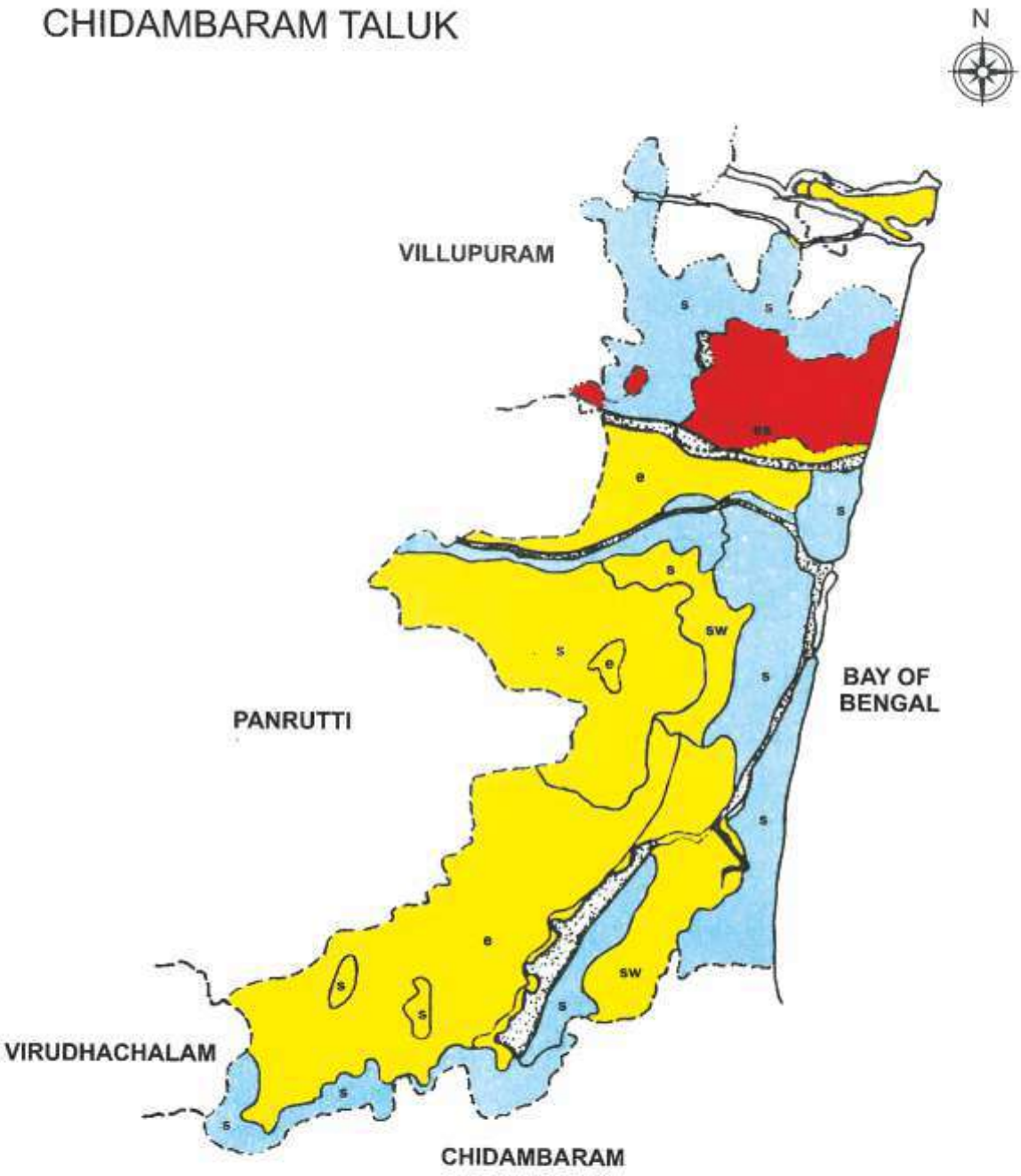
Subclass

s - Root zone limitation

e - Erosion and run off

w - Wetness

LAND CAPABILITY
CHIDAMBARAM TALUK



REFERENCE

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- COASTAL BOUNDARY
- PONDICHERRY
- WATER BODY

LEGEND

CLASS

- Good Cultivable Land
- Moderately Good Cultivable Land

SUB CLASS

- s Soil Limitation
- e Erosion and Runoff
- w Wetness

LAND IRRIGABILITY

CUDDALORE TALUK

Area (ha)	Land irrigability classification	Soil Series	Limitation
9441 16.66%	2s	Vadalapakkam	Texture alkalinity
17143 30.26%	2st	Vadapudupett	Topography run off
14244 25.15%	3s	Arasanatham Mahabalipuram Mangadu Uchimedu	Depth texture alkalinity wetness drainage
14118 24.92%	3sd	Ammapettai Pulavanur	Permeability alkalinity

Class

2 - Lands that have moderate limitations for sustained use under irrigation.

3 - Lands that have severe limitations for sustained use under irrigation.

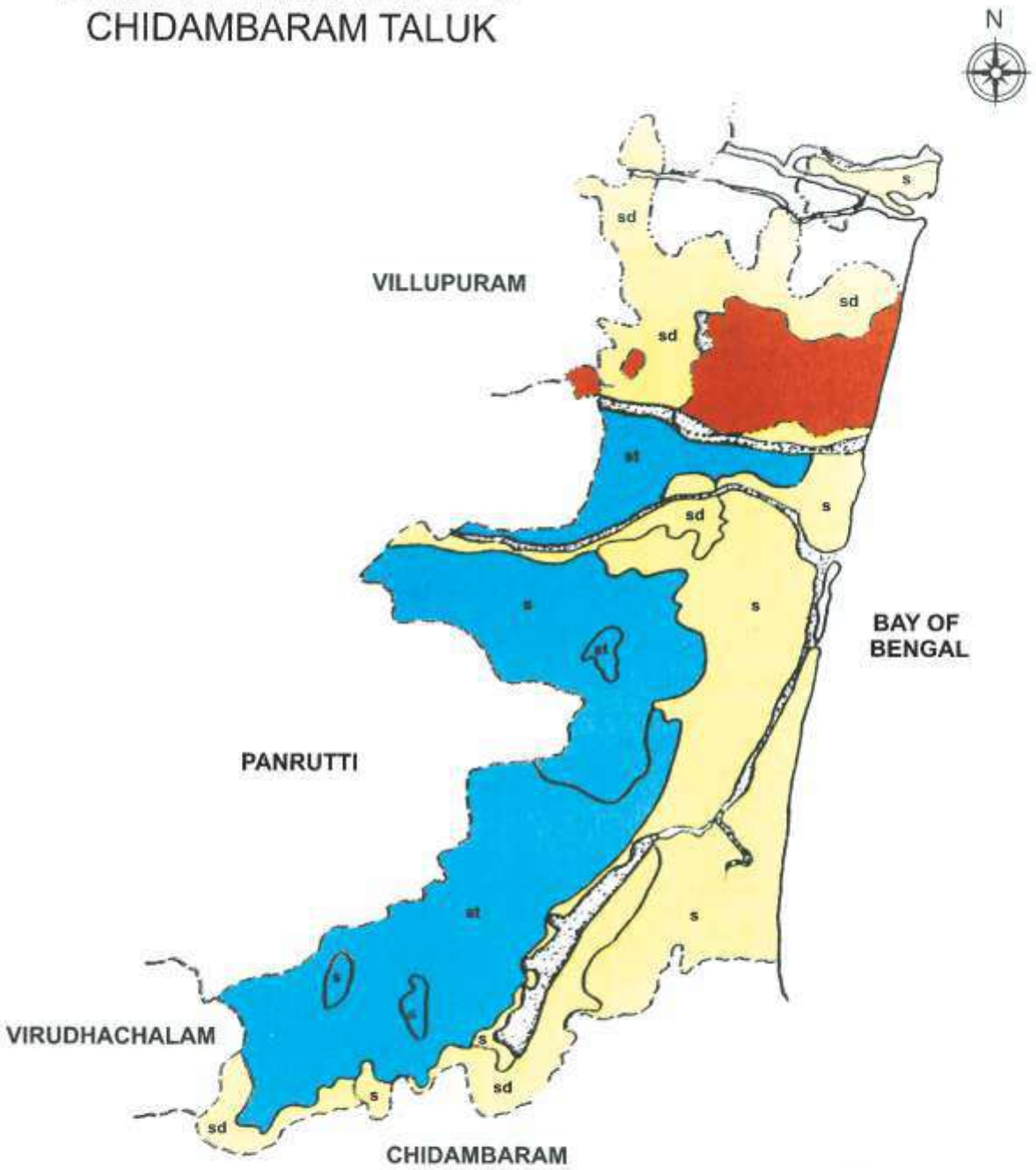
Sub Class

s - Soil limitation

t - Topographical limitation

d - Drainage hazard

LAND IRRIGABILITY
CHIDAMBARAM TALUK

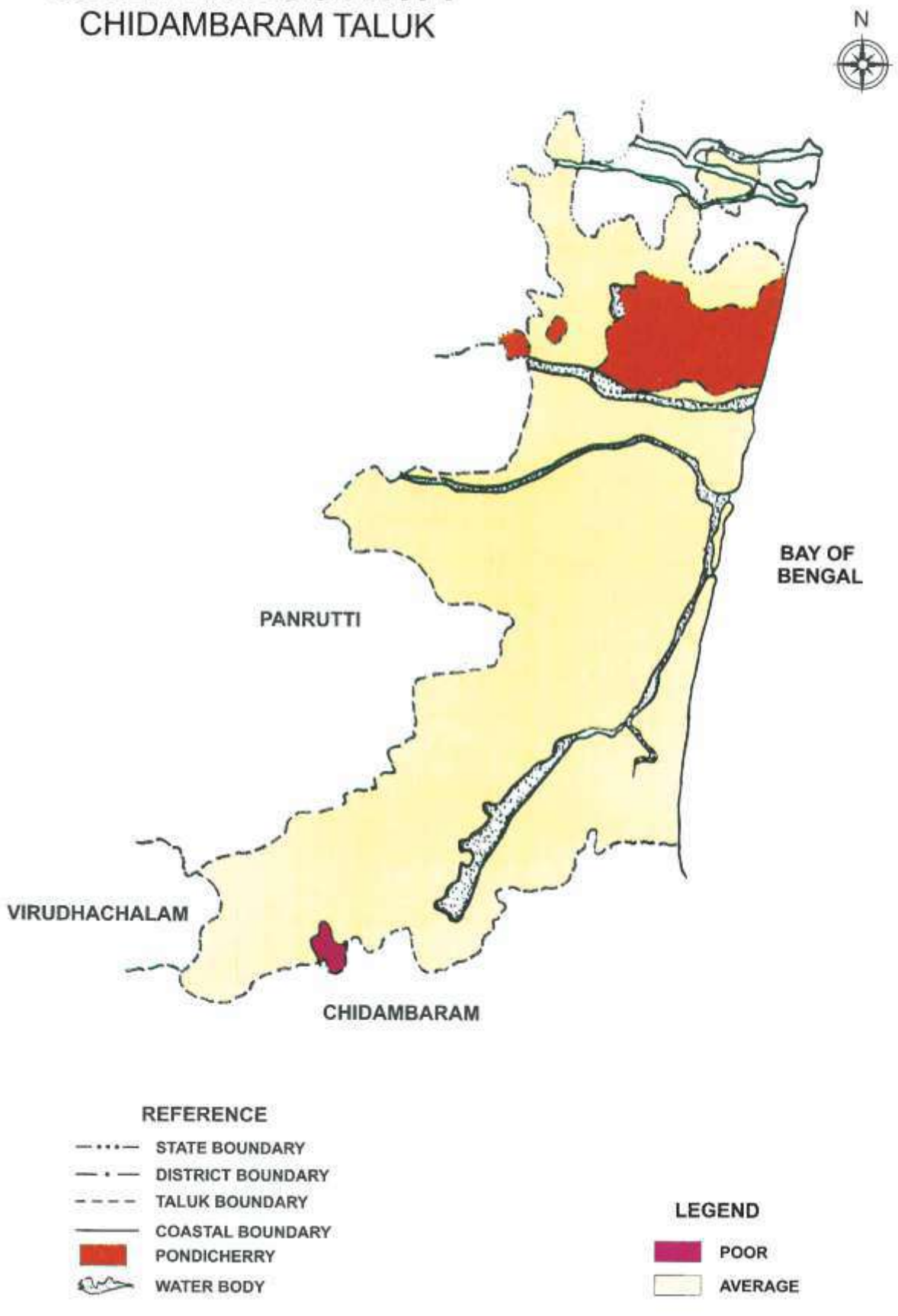


SOIL PRODUCTIVITY

CUDDALORE TALUK

Area (ha)	Productivity		Soil Series	Needs
	Class	Rating		
166 0.29%	Poor	8 - 19	Mababalipuram Uchimedu	Drainage fertility management
54782 (96.71%)	Average	20-34	Arasanatham Pulavanur Mangadu Vadapudupet Vadalapakkam Ammapettai	Soil reclamation drainage fertility management soil conservation

SOIL PRODUCTIVITY
CHIDAMBARAM TALUK



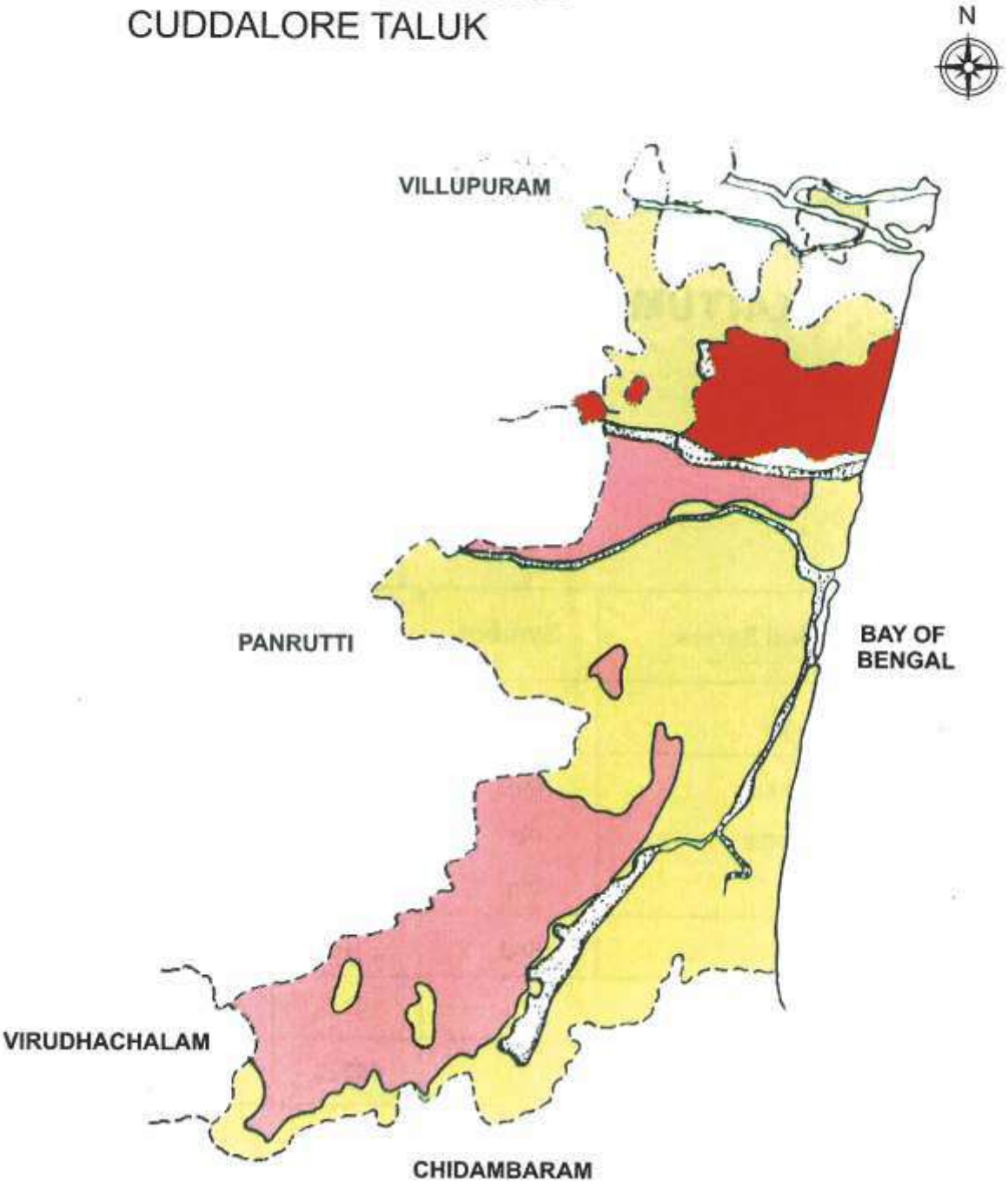
SUITABILITY FOR RICE

CUDDALORE TALUK

Class	Soil Series	Area	
		ha	%
1. Moderately suitable	Vadalapakkam Arasanatham Ammapettai Pulavanur Mangadu Uchimedu	37805	66.74
2. Marginally suitable	Vadapudupet	17143	30.26
3. Temporarily not suitable	Mahabalipuram	—	—

SUITABILITY FOR RICE

CUDDALORE TALUK



SOILS

KATTUMANNARKOIL TALUK

Soil Order	Soil Series	Symbol	ha	%	Associated Soils*
Entisols	Padugai	Pdg	205	0.43	—
Alfisols	Madukkur	Mdk	3232	6.70	—
	Pattukottai	Pkt	12876	26.70	Mdk
	Vallam	Vlm	1693	3.51	—
Vertisols	Kondal	Knd	20469	42.45	—
	Water bodies etc.		9748	20.21	—
	TOTAL		**48223**	**100**	

* Area of associated soils are included in the respective major soil series.

SOILS
KATTUMANNARKOIL TALUK

VILLAGE-WISE FERTILITY STATUS AND DOMINANT SOIL SERIES

KATTUMANNAR KOIL TALUK

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
KATTUMANNAR KOIL PANCHAYAT UNION				
1. Achanapuram	77	28	120	Knd
2. Agaraputhur	59	24	92	Mdk
3. Anandankudi	86	17	75	Knd
4. Ayankudi	74	35	96	Knd
5. Azhainjimangalam	67	16	120	Knd
6. Chettithangal	73	19	138	Mdk, Knd
7. Eyyalur	75	15	106	Knd
8. Gunavasal	88	14	128	Knd
9. Kachehar	87	24	89	Knd
10. Kokkarasanpettai	66	16	116	Knd, Mdk
11. Kanottampuliyar	72	20	96	Knd
12. Kanjankottai	69	26	115	Knd
13. Karunakaranallur	72	22	104	Mdk
14. Karungudi	77	20	96	Mdk
15. Keelakadambur	77	22	128	Knd, Pkt
16. Keelpuliampattu	77	20	118	Knd
17. Keelradhamur	77	17	96	Knd, Mdk
18. Kondasamudhrum	77	16	116	Pkt
19. Kovilpattu	76	22	118	Mdk
20. Kozhai	82	22	102	Pkt, Vts
21. Kunjimedu	77	25	98	Knd
22. Kuppaangpillaichavadi	92	20	108	Mdk
23. M. Aadhanoor	86	14	128	Knd
24. Mangalam	74	37	84	Pkt
25. Maniyathur	78	20	96	Knd, Mdk
26. Mannarkudi	80	26	120	Knd
27. Melkadambur	74	24	98	Knd
28. Melpakkathurai	77	25	118	Knd

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
29. Melradhamur	72	27	102	Knd, Mdk
30. Movur	75	19	140	Knd
31. M. Uttamacholapuram	96	21	117	Knd
32. Muttam	94	34	98	Knd
33. Naataarmangalam	78	16	90	Mdk
34. Omampuliyur	85	22	90	Knd
35. Palanjanallur	79	13	146	Pkt. Mdk
36. Palvayakandhan	82	22	132	Knd
37. Poikottagam	72	15	148	
38. Puliangudi	86	16	142	Knd
39. Puthur	75	25	108	Knd
40. Puvilandhanallur	78	15	98	
41. Rajendracholagam	89	18	109	Mdk, Knd
42. Rayanallur	78	20	108	Mdk, Knd
43. Reddiyur	78	25	96	Knd
44. Sathan	77	10	140	Knd
45. Sirukaaloor	61	22	126	Knd
46. Sithamalli	74	84	109	Mdk
47. Sriaadivaraganallur	80	18	96	
48. Srineducheri	78	25	102	
49. Srimushnam	77	25	102	Mdk
50. T. Arumozthithavan	78	24	120	
51. Thiruchinapuram	84	19	86	Mdk
52. Thirumoolarsthanam	90	22	112	Mdk
53. Thorappu	75	15	120	Knd
54. Udiyarkudi	73	18	130	Mdk
55. Vanamadevi	72	22	96	Mdk
56. Velampoondi	77	12	86	Knd
57. Veeracholapuram	77	20	96	Knd
58. Veeranallur	72	15	120	Mdk, Pkt

LAND CAPABILITY

KATTUMANNARKOIL TALUK

Area (ha)	Land capability classification	Soil Series	Limitation
23906 49.57%	II s	Madukkur Kondal Padugai	Texture drainage
12876 26.70%	II es	Pattukottai	Erosion texture
1693 3.51%	III es	Vallam	Erosion and run off

Class

II Good cultivable lands that have few limitations for sustained use under agriculture

III Moderately good cultivable lands that have severe limitations for sustained use under agriculture

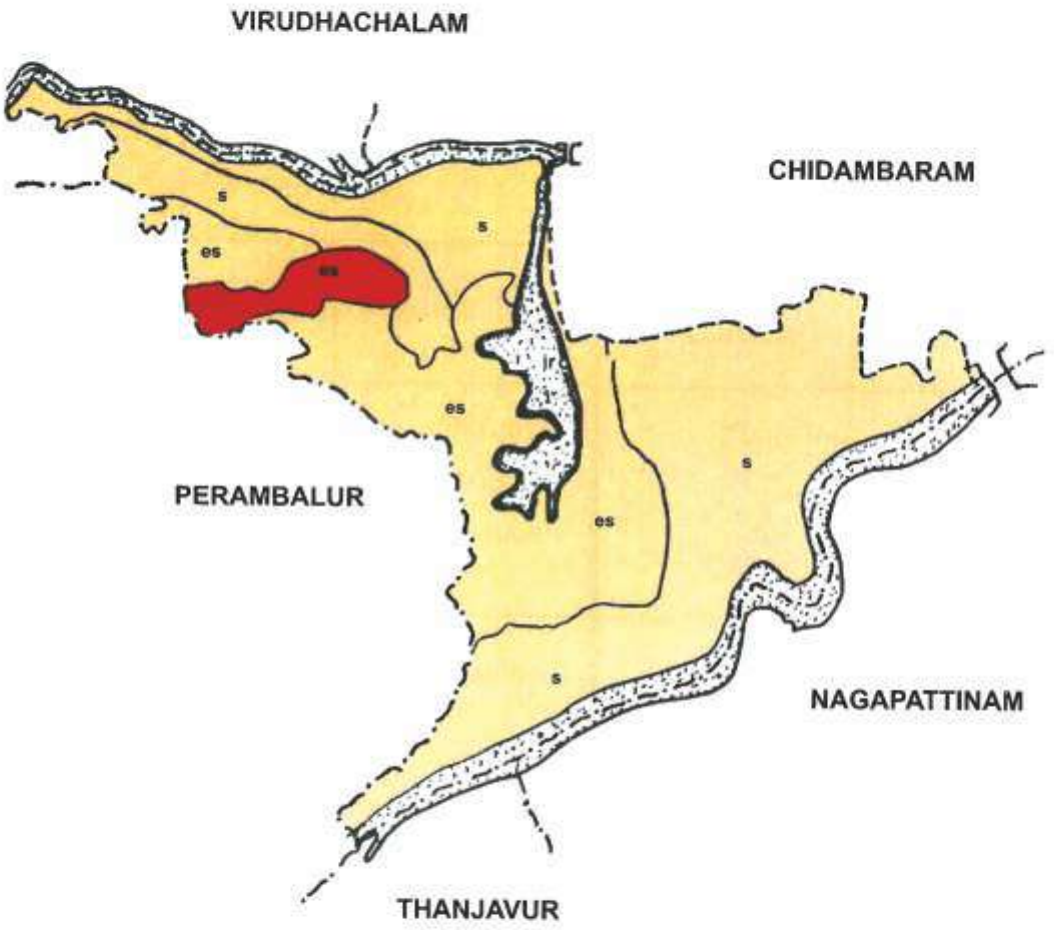
Subclass

s - Root zone limitation

e - Erosion and run off

w - Wetness

LAND CAPABILITY
KATTUMANNARKOIL TALUK



LEGEND

CLASS

- Good Cultivable Land
- Moderately Good Cultivable Land

SUB CLASS

- s Soil Limitation
- e Erosion and Runoff

REFERENCE

- DISTRICT BOUNDARY
- TALUK BOUNDARY
- WATER BODY

LAND IRRIGABILITY

KATTUMANNARKOIL TALUK

Area (ha)	Land irrigability classification	Soil Series	Limitation
16373 33.83%	2s	Madukkur Pattukottai Padugai	Texture drainage alkalinity development
20469 42.45%	2sd	Kondal	Drainage texture
1693 3.51%	3 st	Vallam	Topography erosion and run off

Class

2 - Lands that have moderate limitations for sustained use under irrigation.

3 - Lands that have severe limitations for sustained use under irrigation.

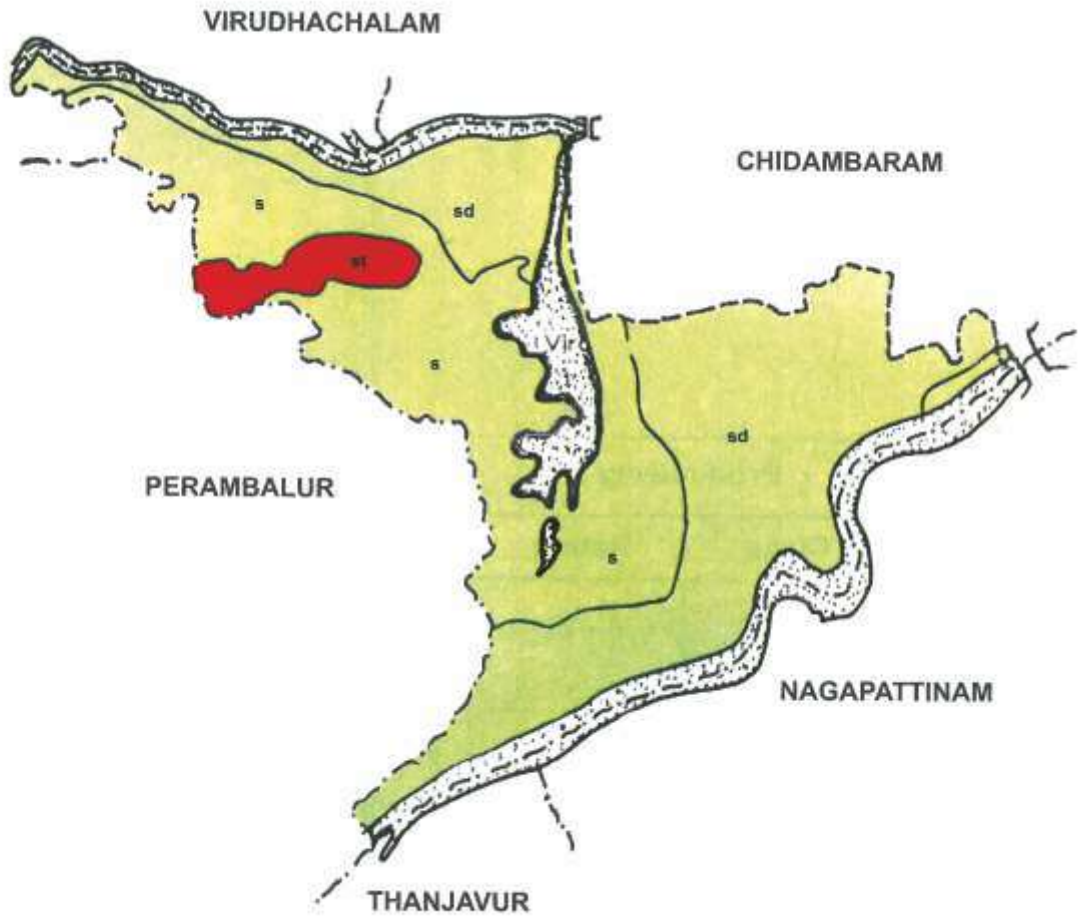
Sub Class

s - Soil limitation

t - Topographical limitation

d - Drainage hazard

LAND IRRIGABILITY
KATTUMANNARKOIL TALUK



LEGEND

CLASS

- Moderate Limitation
- Severe Limitation

SUB CLASS

- s Soil Limitation
- t Topography
- d Drainage Hazard

REFERENCE

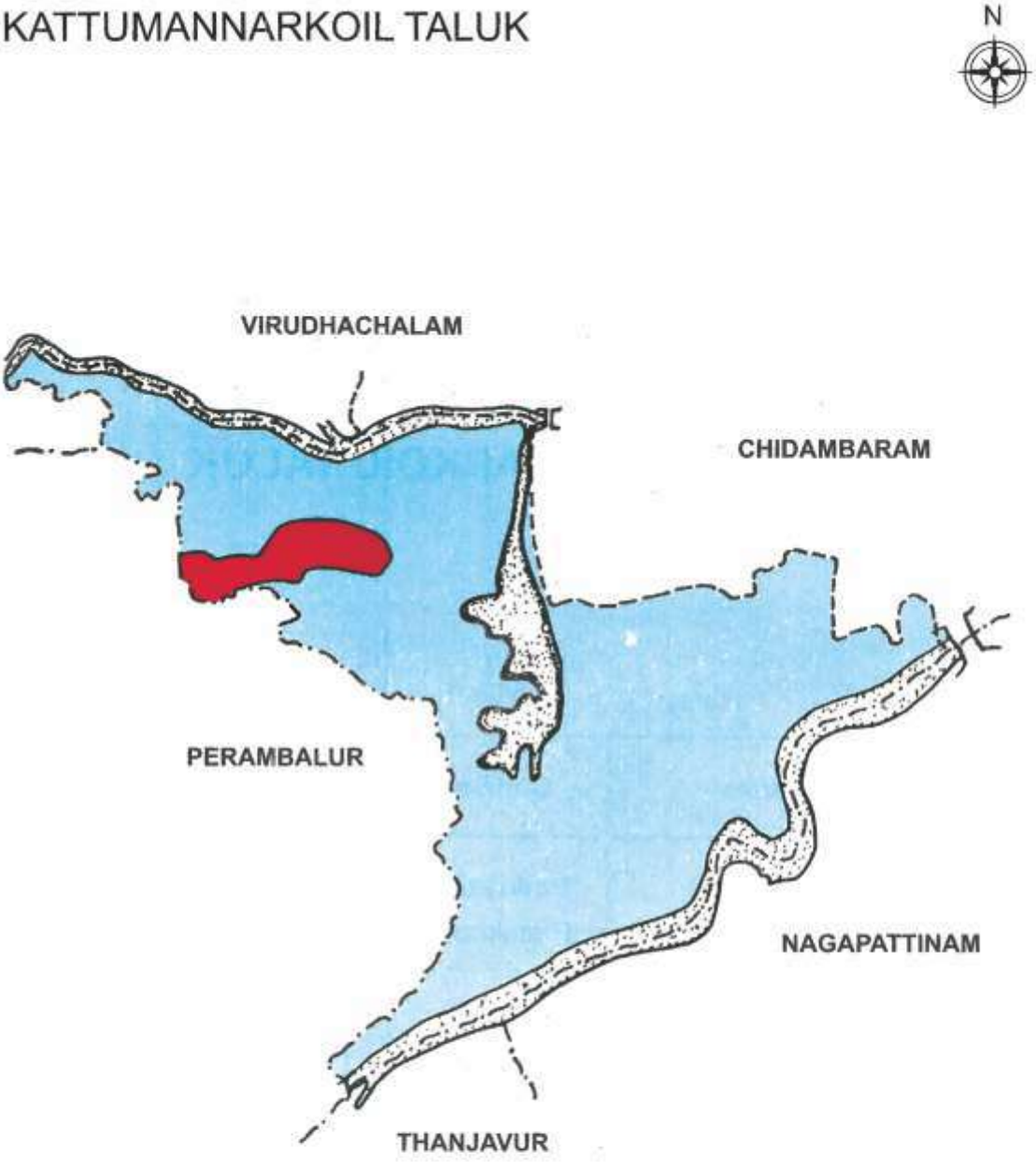
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- WATER BODY

SOIL PRODUCTIVITY

KATTUMANNARKOIL TALUK

Area (ha)	Productivity		Soil Series	Needs
	Class	Rating		
1693 3.51%	Poor	8 - 19	Vallam	Soil conservation fertility management
36782 76.28%	Average	20-34	Padugai Madukkur Pattukottai Kondal	Textural improvement drainage soil reclamation

SOIL PRODUCTIVITY
KATTUMANNARKOIL TALUK



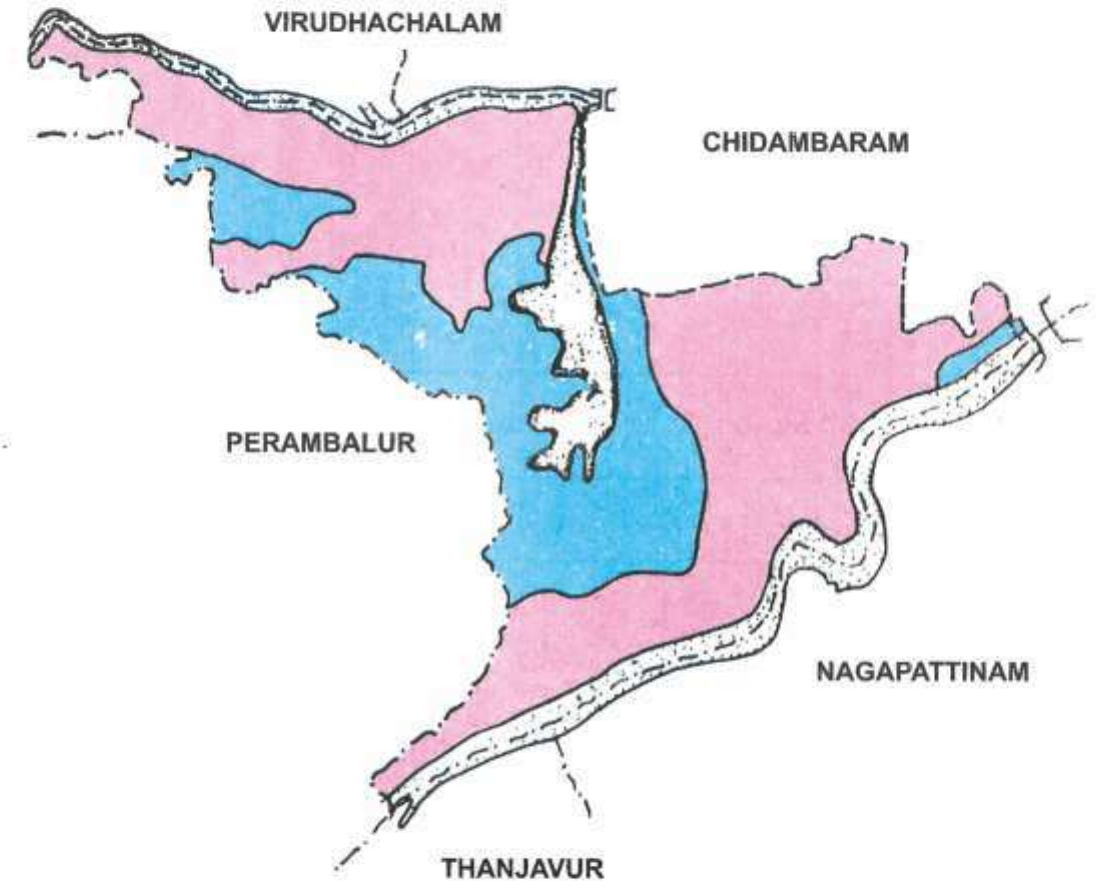
SUITABILITY FOR SUGARCANE

KATTUMANNARKOIL TALUK

Class	Soil Series	Area	
		ha	%
1. Moderately suitable	Padugai Pattukottai	13801	28.62
2. Marginally suitable	Madukkur Vallam Kondal	24674	51.17

SUITABILITY FOR SUGARCANE

KATTUMANNARKOIL TALUK



REFERENCE

- DISTRICT BOUNDARY
- TALUK BOUNDARY
- WATER BODY

LEGEND

- Moderately Suited
- Marginally Suited

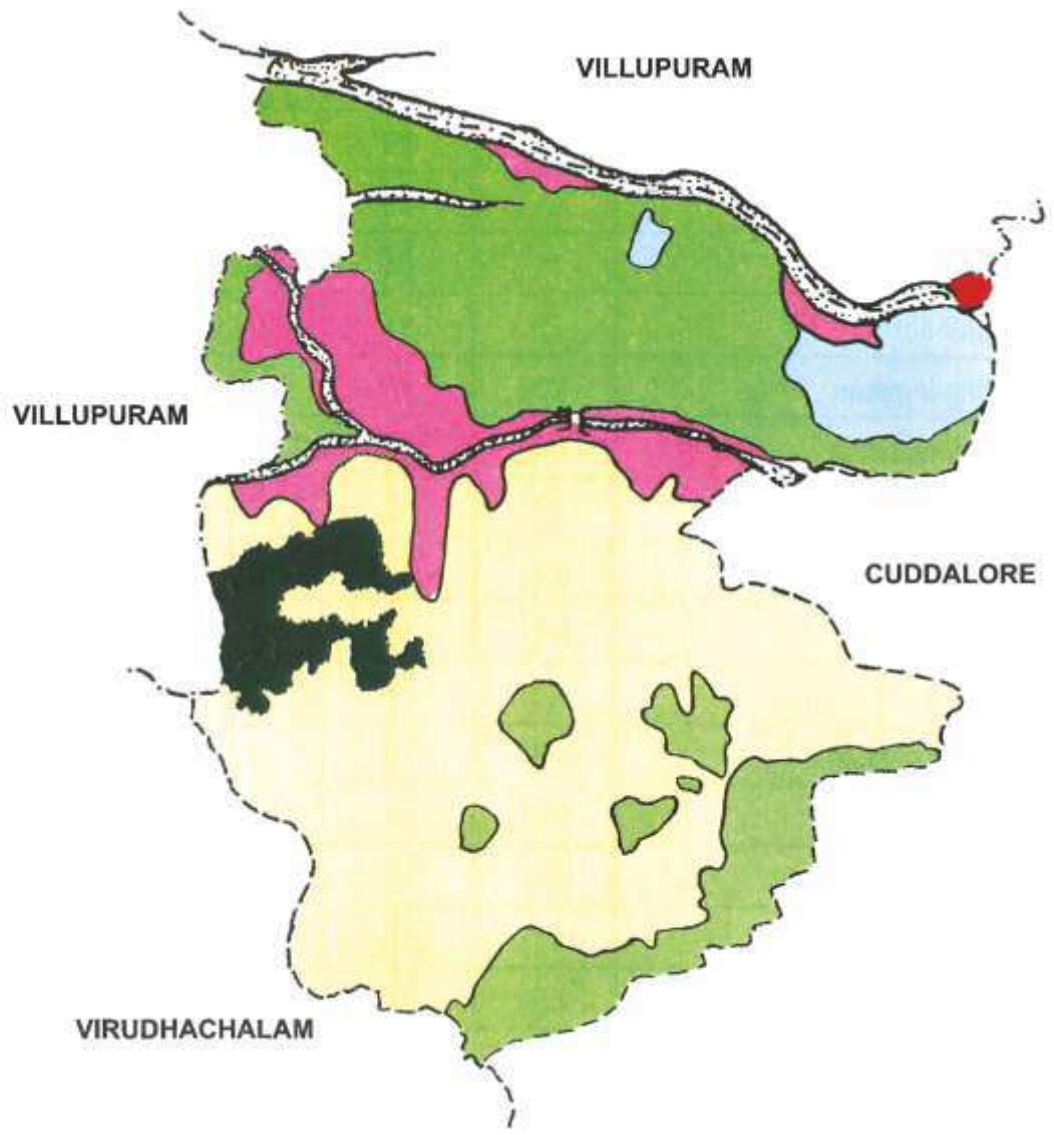
SOILS

PANRUTTI TALUK

Soil Order	Soil Series	Symbol	ha	%	Associated Soils*
Inceptisols	Pulavanur	Plr	5851	10.43	—
Alfisols	Vadalapakkam	Vdm	24177	43.09	Vdp
	Vadapudupet	Vdp	18325	32.67	Plr
Vertisols	Ammapettai	Amp	2593	4.63	Plr
	Water bodies	—	5151	9.18	—
	TOTAL		**56097**	**100**	

* Area of associated soils are included in the respective major soil series.

SOILS
PANRUTTI TALUK



VILLAGE-WISE FERTILITY STATUS AND DOMINANT SOIL SERIES

PANRUTTI TALUK

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
ANNAGRAMAM PANCHAYAT UNION				
1. Alagaperumalkuppam	71	12	139	Vdp
2. Akkadavalli	70	8	142	Vdp
3. Ariyanur	56	19	109	Vdp
4. Ariyirudamangalam	65	10	135	Vdp
5. Eithanur	71	18	132	Amp, Vdp
6. Elumedu	70	13	124	Vdp
7. Ethimangalam	73	10	106	Vdp
8. Kandarakkottai	66	24	123	Vdp, Plr
9. Kanisapakkam	62	13	121	Vdp
10. Karumbur	68	12	131	Vdp
11. Kavanur	66	15	119	Vdp
12. Korattai	65	15	120	Vdp
13. Keelarungunam	67	13	130	Amp, Plr
14. Keelkavarapattu	73	11	138	Vdp
15. Keel Kuppam	66	12	136	Vdp, Vdm
16. Kilpathi	67	12	132	Amp
17. Kayapakkam	55	30	104	Vdp
18. Kongarayanur	66	10	131	Vdp
19. Kotlampakkam	64	14	116	Vdp
20. Kozhipakkam	72	8	124	Vdp
21. Kudithangi	65	10	140	Amp, Plr
22. Maligaimedu	58	10	128	Vdp
23. Manapakkam	70	13	125	Vdp
24. Melkavarapattu	72	10	110	Vdp

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
25. Melkumaramangalam (North)	62	15	127	Vdp, Amp
26. Melkumaramangalam (South)	63	14	128	
27. Melpattampakkam	63	10	147	Amp, Vdp
28. Mullikiramapattu	70	11	128	Amp, Vdp
29. Nellikuppam	55	20	120	Amp, Plr
30. Oraiyur	71	9	133	Vdp
31. Pagandai	67	13	132	Pdg, Vdp
32. Palapattu	66	13	131	Vdm
33. P.N. Palayam	63	7	107	Amp, Vdp
34. Palur	71	64	128	Vdp, Amp
35. Pantaraikottai	58	10	125	Vdp
36. Poondi	61	24	125	Vdp
37. Pulavanur	69	11	128	Vdp, Plr
38. Payathambadi	71	12	133	Vdp
39. Sattipattu	56	20	101	Vdm, Phl
40. Tirasu	64	20	129	Vdp
41. Thirukandeswaram	55	38	110	Amp, Plr
42. Thiruthuraiyur	67	12	126	Vdp
43. Torapadi	55	38	116	Vdp
44. Vadapakkam	61	11	125	Amp, Plr
45. Vanpakkam	55	30	121	Vdp
46. Ulundampattu	65	28	130	Vdp
47 Sundravandi	64	8	147	Vdp

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
PANRUTTI PANCHAYAT UNION				
1. Alagappa Samudram	66	11	143	Vdp, Vdm
2. Andikuppam	71	12	169	Vdp
3. Anguchettipalayam	69	15	135	Vdp
4. Elathampattu	65	7	117	—
5. Karukkai	64	15	119	Vdm, Vdp
6. Kadampauliyur	68	9	139	Vdm
7. Kattugudalur	74	10	143	Vdm
8. Kilkangayankuppam	67	11	143	—
9. Kilmampattu	63	16	140	Vdm
10. Kiliruppu	68	8	130	Vdm
11. Kolipakkam	72	8	124	Vdp
12. Lakshminarayanapuram	70	11	125	Vdp
13. Maligampattu	67	7	102	Vdp
14. Manapakkam	70	12	125	Vdp
15. Manathavazhuthapattu	63	10	147	—
16. Marungur	70	7	113	Vdm
17. Melarungunam	66	10	210	Vdp
18. Meliruppu	62	10	132	Vdm
19. Melkangeyankuppam	71	11	132	Vdm
20. Melmampattu	65	11	137	Vdm
21. Nadukuppam	65	7	134	Vdm
22. Natham	64	6	139	Vdp, Plr
23. Panikankuppam	70	13	123	Vdm, Vdp
24. Panrutti	67	12	132	Vdp
25. Periyankuppam	64	13	123	Vdm
26. Poongunam	66	11	125	Vdp
27. Purangani	67	10	130	Vdm, Vdp
28. Royarpalayam	73	8	128	Vdp
29. Seemakottai	72	10	121	Vdp
30. Semmedu	69	11	136	Vdm, Vdp

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
31. Silampinathanpettai	68	25	119	Vdm, Vdp
32. Sirugiramam	68	10	111	Vdp, Plr
33. Siruvathur	65	9	129	Vdp, Plr
34. Sorathur	70	19	142	Vdm, Vdp
35. Thalampattu	60	12	156	Vdm
36. Thiruvamur	60	11	125	Vdp, Amp
37. Thiruvathi	63	9	97	Vdp Vdm
38. Vadakailasam	60	14	140	Vdp
39. Vallam	67	14	113	Vdm
40. Vegakollai	56	31	96	Vdm, Vdp
41. Veera Perumalnallur	63	9	115	Vdp
42. Veera Singankuppam	62	7	48	Vdm, Vdp
43. Visur	66	13	135	Vdp, Vdm
44. Vilamangalam	65	13	131	Vdp

LAND CAPABILITY

PANRUTTI TALUK

Area (ha)	Land capability classification	Soil Series	Limitation
18325 32.67%	II e	Vadapudupet	Erosion and run off
24177 43.09%	II s	Vadalapakkam	Texture
8444 15.06%	III s	Ammapettai Pulavanur	Texture drainage

Class

II Good cultivable lands that have few limitations for sustained use under agriculture

III Moderately good cultivable lands that have severe limitations for sustained use under agriculture

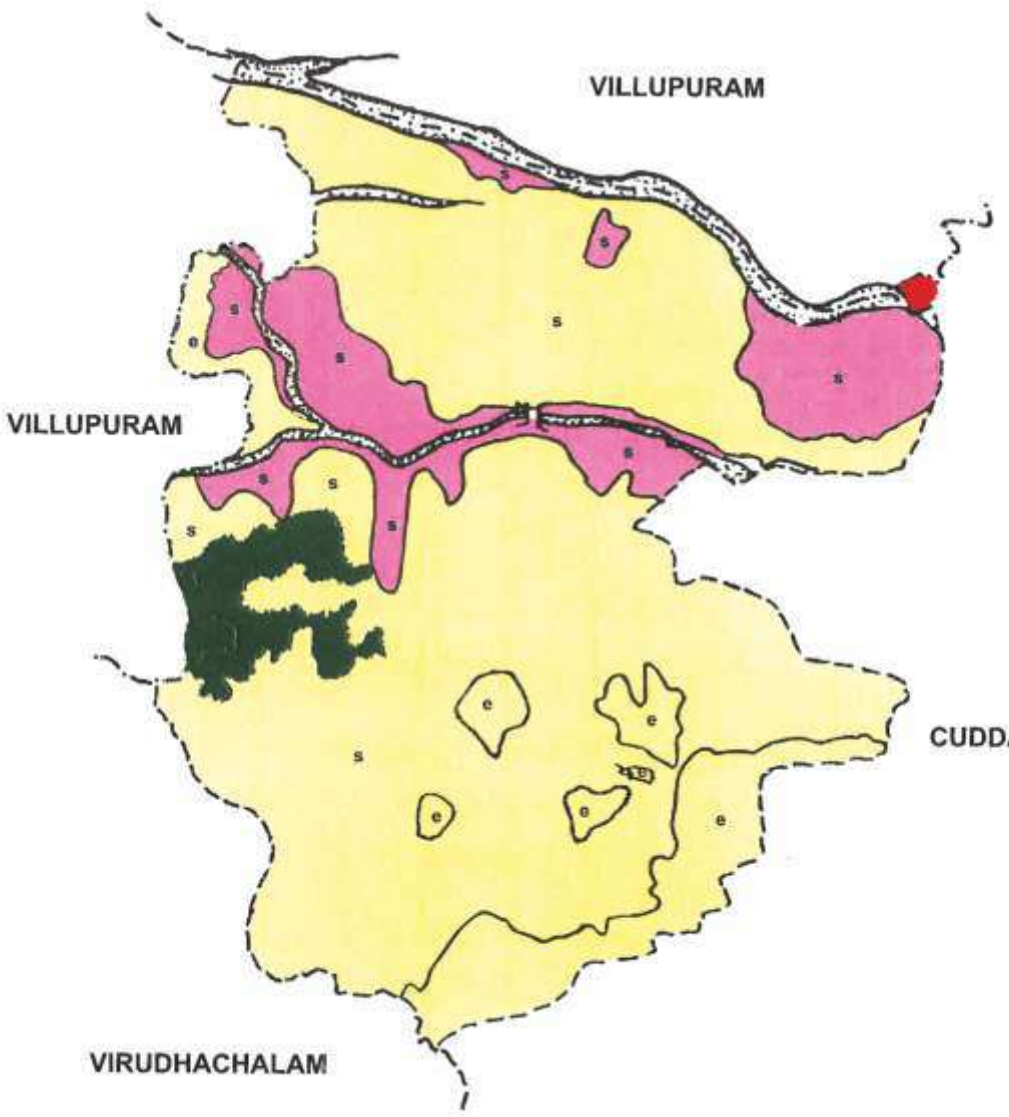
Subclass

s - Root zone limitation

e - Erosion and run off

w - Wetness

LAND CAPABILITY
PANRUTTI TALUK



REFERENCE

- DISTRICT BOUNDARY
- TALUK BOUNDARY
- PONDICHERRY
- FOREST BOUNDARY
- WATER BODY

LEGEND

CLASS

- Good Cultivable Land
- Moderately Good Cultivable Land

SUB CLASS

- s — Soil Limitation
- e — Erosion and Runoff

LAND IRRIGABILITY

PANRUTTI TALUK

Area (ha)	Land irrigability classification	Soil Series	Limitation
24177 43.09%	2 s	Vadalapakkam	Texture drainage
18325 32.67%	2 st	Vadapudupet	Topography run off
8444 15.06%	3 sd	Ammapettai Pulavanur	Permeability drainage alkalinity

Class

2 - Lands that have moderate limitations for sustained use under irrigation.

3 - Lands that have severe limitations for sustained use under irrigation.

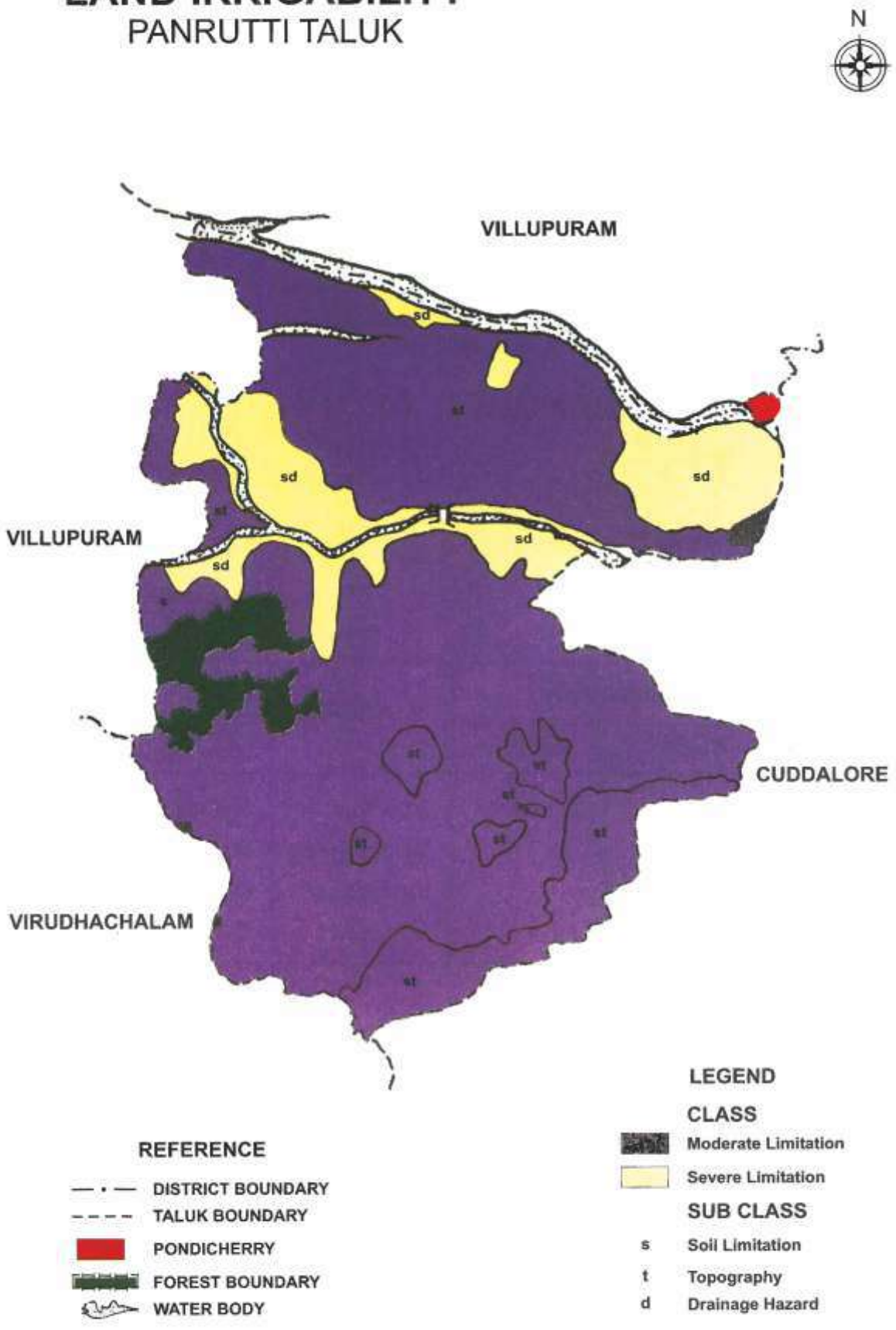
Sub Class

s - Soil limitation

t - Topographical limitation

d - Drainage hazard

LAND IRRIGABILITY
PANRUTTI TALUK



SOIL PRODUCTIVITY

PANRUTTI TALUK

Area (ha)	Productivity		Soil Series	Needs
	Class	Rating		
50946 90.82%	Average	20 - 34	Pulavanur Vadalapakkam Vadapudupet Ammapettai	Soil reclamation drainage fertility management

SOIL PRODUCTIVITY
PANRUTTI TALUK

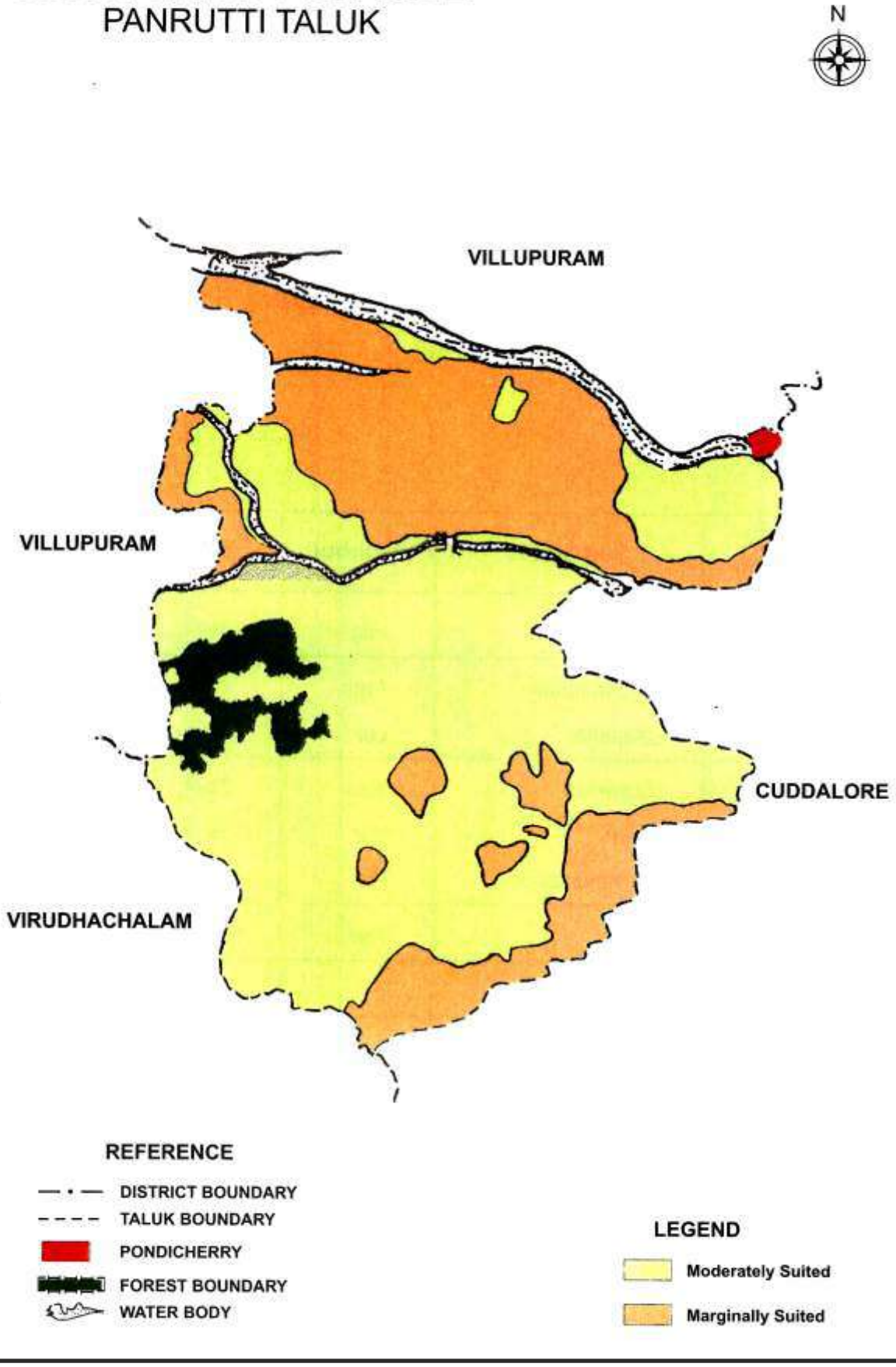
SUITABILITY FOR RICE

PANRUTTI TALUK

Class	Soil Series	Area	
		ha	%
Moderately suitable	Vadalapakkam Ammapettai Pulavanur	32621	58.15
Marginally suitable	Valuthalakudi	18325	32.67

SUITABILITY FOR RICE

PANRUTTI TALUK

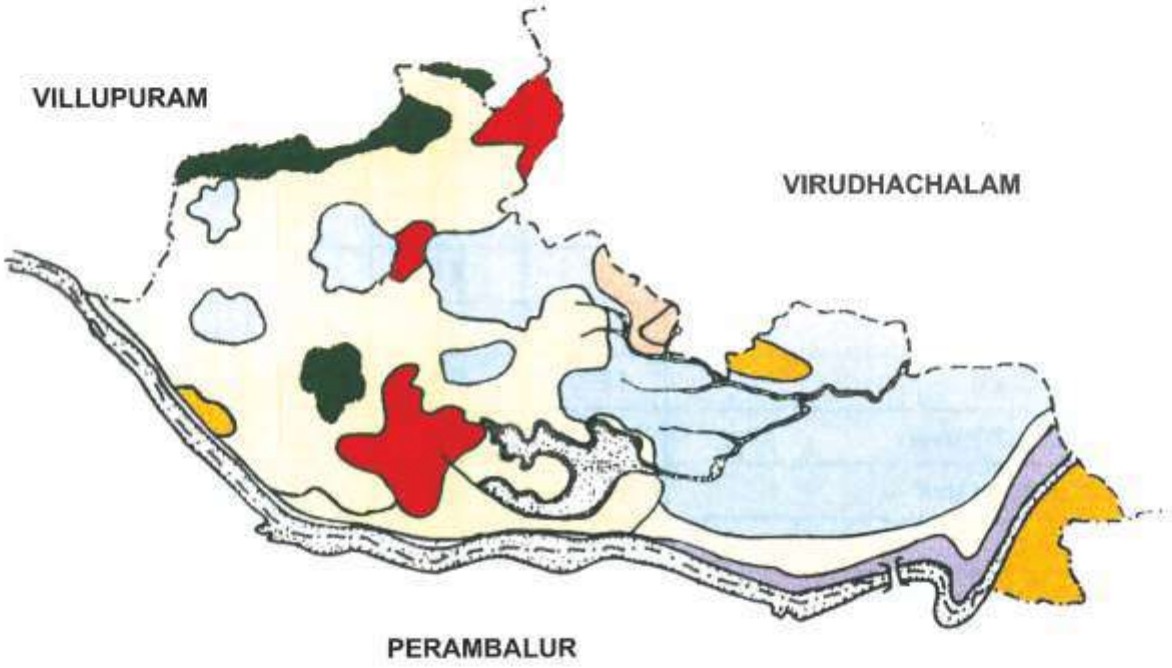


SOILS

TITTAGUDI TALUK

Soil Order	Soil Series	Symbol	ha	%
Entisols	Padugai	Pdg	3131	5.25
Inceptisols	Arasanatham	Anm	2929	4.91
	Lalapettai	Lpi	21562	36.12
Alfisols	Madukkur	Mdk	2121	3.55
	Vanur	Vnr	2727	4.57
	Vadathesasalur	Vts	606	1.02
Vertisols	Kondal	Knd	18835	31.56
	Water bodies etc.		7776	13.02
	TOTAL		**59687**	**100**

SOILS
THITTAKUDI TALUK



VILLAGE-WISE FERTILITY STATUS AND DOMINANT SOIL SERIES

THITTAKUDI TALUK

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
MANGALUR PANCHAYAT UNION				
1. Aakkanur	77	17	84	Pcl, Pdg
2. Adari	149	23	150	Anm, Pcl
3. Adarnatham	91	17	120	Pcl, Anm
4. Alambadi	94	22	96	Pcl, Anm
5. Alathur	105	20	102	Pcl, Anm
6. Arangar	129	44	162	Pcl, Anm
7. Arasangudi	110	22	78	Pcl, Anm
8. Avatti	78	17	84	Knd, Anm
9. Avinankudi	87	17	48	Mdk
10. Chittoor	112	23	120	Anm, Pcl
11. Chitheri	129	28	150	Knd, Pcl
12. Edacheruvai	137	41	132	Pcl, Pgd
13. E. Keeranur	139	42	240	Knd
14. Eludur	74	28	72	
15. Elumathur	76	28	84	Mdk, Knd
16. J. Endal	95	29	78	Pcl
17. Kachimailur	76	36	84	Knd
18. Kandamathan	102	20	84	Anm
19. Kalathur	72	57	96	Knd
20. Kaludur	113	42	108	Knd
21. Kallur	82	22	96	Anm
22. Kanchimailur	76	36	84	Knd, Anm
23. Kanchisamangalam	78	27	69	Knd, Pcl
24. Kangambadi	72	32	78	Pcl
25. Keel Adanur	80	25	72	Knd, Pcl
26. Keelachervai	69	40	102	Knd
27. Keelakalpoondi	76	36	84	Anm, Pdg
28. Keelonathur	78	27	69	Anm, Mdk

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
29. Kodangudi	66	17	140	
30. Kolavai	90	54	78	Mdk
31. Korakkavadi	98	45	78	Anm
32. Koghiyur	76	28	138	Mdk, Knd
33. Kumarai	72	22	68	Knd
34. Lekkur	105	23	60	Anm
35. Laxmanapuram	101	17	54	Anm, Pdg
36. Mangalur	91	11	72	Anm, Pcl
37. Malaiyanoor	74	30	266	Knd, Anm
38. Meladanur	87	14	66	Knd, Pcl
39. Melakalpoondi	95	17	78	Anm
40. M. Kothanur	82	26	102	
41. M. Podaiyur	110	17	84	Anm, Knd
42. M. Pudur	102	25	66	
43. Nangur	76	24	126	Anm
44. Naraiyur	78	20	98	Anm, Pcl
45. Navalur	91	17	102	Knd
46. Nadungulam	95	27	90	Knd
47. Neivasal	77	31	96	Pdg, Mdk
48. Nidhinatham	87	21	105	Knd,
49. Orangur	96	24	78	Anm
50. Pasur	95	23	78	Anm, Knd
51. Pattakurichi	84	13	66	
52. Pathur	96	40	69	Mdk, Pdg
53. Perangiyam	102	34	72	Pcl, Mbm
54. Perumalai	79	24	108	Knd
55. Ponaivandur	98	24	98	Anm, Pcl
56. Pothiramangalam	72	30	120	Knd, Mdk
57. Poyyanapadi	78	21	90	Knd, Pcl
58. Pudukulam	92	22	54	Knd
59. Pulikarambalur	96	17	78	Anm

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
60. Pulivalam	102	21	220	Knd, Pcl
61. Pullur	102	21	220	Knd, Pcl
62. Ramanatham	69	17	60	Pcl, Anm
63. Rettakurichi	84	13	66	Pcl
64. Sevveri	132	34	90	Knd
65. Sirukarambalur	154	30	138	Knd
66. Sirumoolai	102	27	72	Knd
67. Sirupakkam	144	38	66	Pcl, Lpl
68. T. Endal.	92	26	72	
69. Thachchur	95	34	66	Lpl, Anm
70. Thittakudi	100	31	96	Mdk, Knd
71. Thazhudur	78	27	60	Lpl, Pcl
72. Thondankurichi	82	23	72	Knd, Vts
73. T. Ilamangalam	102	32	92	
74. Vadkarampoondi	98	32	84	Lpl Mdk
75. Vadapathy	84	32	96	Lpl, Knd
76. Vangaiyur	96	29	120	Pcl
77. Vaiyangudi	105	35	205	Knd
78. Vallimarudhiam	92	40	74	Lpl, Knd
79. Vasistapuram	75	27	195	Knd, Mdk
80. Vaithiyanathapuram	78	24	98	
81. Vangaur	115	15	110	Anm, Pcl
82. Vinayaganandal	110	23	98	Knd

Village		Fertility Status (kg/ac)			Dominant Soil Series
		N	P	K	
NALLUR PANCHAYAT UNION					
1)	A. Agaram	95	22	78	Knd
2)	A. Chittoor	76	20	78	Lpi
3)	Adamangalam	99	20	78	Knd
4)	Adiyur	96	25	96	Knd
5)	A. Kolapakkam	77	17	90	Knd
6)	Arungeri	76	27	84	Knd
7)	Ariyaravi	90	22	72	Knd
8)	Butheri	77	30	96	Knd
9)	Gudalur	90	26	96	Mdk,Pdg
10)	Eraiyur	111	17	114	Knd, Mdk
11)	Erappavur	77	30	140	Knd
12)	Ilangiyanur	80	14	84	Knd,Mdk
13)	Ivadukudi	84	22	72	Knd
14)	Irulampattu	78	26	102	Pdg, Mdk
15)	Karaiyur	105	46	114	Knd
16)	Kattumailur	90	30	108	Knd
17)	Keelakurichi	84	14	102	Knd
18)	Kilimangalam	123	42	234	Pdg, Mdk
19)	Kilnemili	84	45	72	Knd
20)	Kodikalam	84	22	84	Mdk, Pdg
21)	Konur	72	48	114	Knd
22)	Kosapallam	120	48	126	Mdk, Knd

Village		Fertility Status (kg/ac)			Dominant Soil Series
		N	P	K	
23)	Kurukkathancheri	95	50	102	Mdk
24)	Kothattai	78	29	96	Knd
25)	Kovilur	76	28	138	Knd
26)	Maduravalli	76	22	84	Knd
27)	Melakurichi	76	23	96	Knd
28)	Maligaimedu	77	17	72	Knd
29)	Maligaikottam	113	32	66	Mdk, Knd
30)	M. Mathur	78	22	84	Knd
31)	Majanur	84	15	96	-
32)	Mannambadi	70	19	84	Knd
33)	Marathathur	87	14	66	-
34)	Melur	90	17	78	Knd.
35)	Mosattai	84	22	70	Pdg, Mdk
36)	Murugankudi	76	34	84	Mdk, Pdg, Knd
37)	Nagar	90	22	86	Knd
38)	Nallur	92	19	90	Knd
39)	Nandhimangalam	90	40	69	Knd
40)	Narisinmangalam	94	34	72	Knd
41)	Nesalur	78	28	66	Knd
42)	Niramani	78	17	144	Mdk
43)	N. Naraiyur	98	10	72	Knd
44)	O. Keeranur	139	43	240	Knd, Mdk
45)	Pelandurai	114	25	126	Mdk, Pdg
46)	Pennadam	124	43	156	Knd, Mdk
47)	Perianesalur	82	22	120	Knd

Village		Fertility Status (kg/ac)			Dominant Soil Series
		N	P	K	
48)	P. Kothanur	70	20	90	Lpi
49)	P. Kollathankurichi	66	27	90	Knd, Mdk
50)	Poolambadi	77	27	54	Knd
51)	P. Ponneri	78	27	102	Knd, Mdk
52)	P. Poovanur	96	22	126	Knd
53)	Saathiyam	75	28	90	Knd
54)	Sirupakkam	144	38	66	Knd
55)	Sirumangalam	95	23	108	Knd
56)	S. Kothanur	78	15	146	Knd
57)	Sevur	113	31	78	Knd, Mdk
58)	Soundirayacholapuram	88	21	102	Pdg, Mdk
59)	Thazhanallur	96	22	96	Knd
60)	Theevalur	96	22	94	Knd
61)	Thiruvattathurai	98	27	90	Pdg, Mdk
62)	Thirumalaiagaram	84	32	60	Knd
63)	Thirupandal	76	26	132	-
64)	T. Pudaiyur	110	17	84	Knd
65)	Thuriayur	66	27	66	Mdk
66)	Vadakarai	76	19	84	Knd
67)	Valsai	78	26	98	Mdk
68)	Vaniyamedu	105	35	206	-
69)	Vannathur	80	20	96	-
70)	Varambanur	75	25	120	Knd
71	Venkarumbur	98	20	98	Mdk, Knd
72)	Veppur	70	20	60	Knd

LAND CAPABILITY

THITTAKUDI TALUK

Area (ha)	Land capability classification	Soil Series	Limitation
24087 40.36%	IIs	Padugai Madukkur Kondal	Soil texture drainage
2929 4.91%	IIsw	Arasanatham	Texture wetness
24895 41.71%	IIIs	Lalapettai Vanur Vadathesasalur	Texture drainage

Class

II Good cultivable lands that have few limitations for sustained use under agriculture

III Moderately good cultivable lands that have severe limitations for sustained use under agriculture

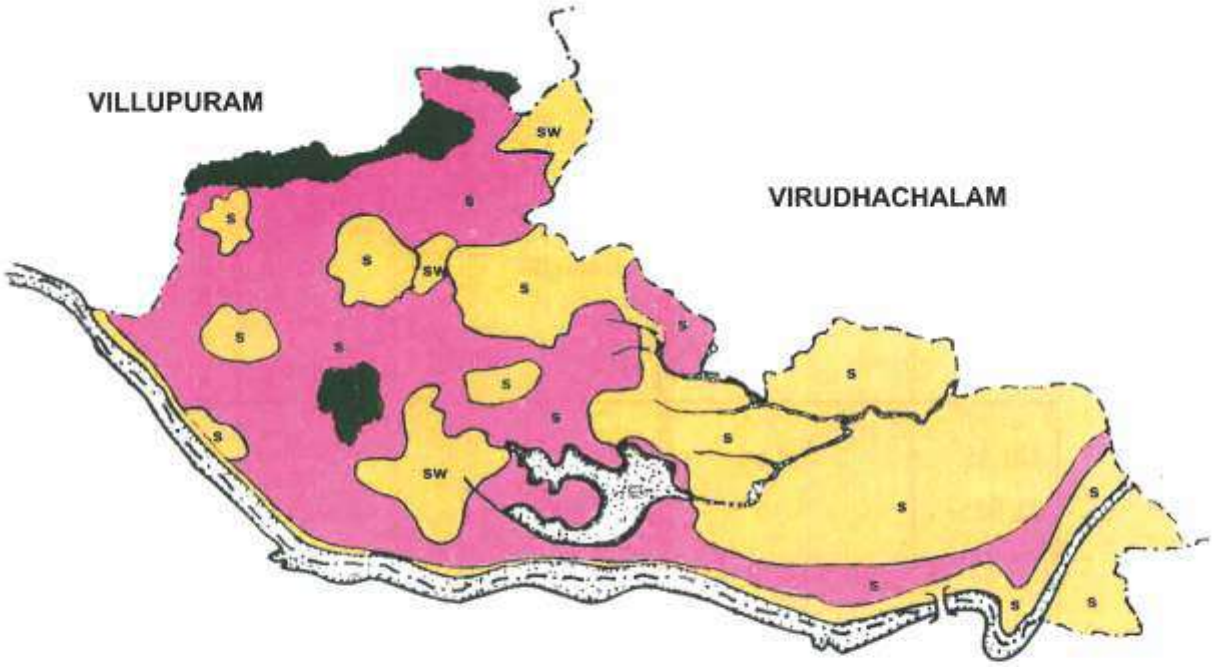
Subclass

s - Root zone limitation

e - Erosion and run off

w - Wetness

LAND CAPABILITY
THITTAKUDI TALUK



REFERENCE

- DISTRICT BOUNDARY
- TALUK BOUNDARY
- FOREST BOUNDARY
- WATER BODY

LEGEND

CLASS

- Good Cultivable Land
- Moderately Good Cultivable Land

SUB CLASS

- s — Soil Limitation
- w — Wetness

LAND IRRIGABILITY

THITTAKUDI TALUK

Area (ha)	Land irrigability classification	Soil Series	Limitation
5252 8.79%	2 s	Madukkur Padugai	Texture drainage alkalinity development
18835 31.56%	2 sd	Kondal	Texture drainage alkalinity development
27824 46.62%	3 s	Lalapettai Arasanatham Vanur Vadathesasalur	Drainage texture permeability

Class

2 - Lands that have moderate limitations for sustained use under irrigation.

3 - Lands that have severe limitations for sustained use under irrigation.

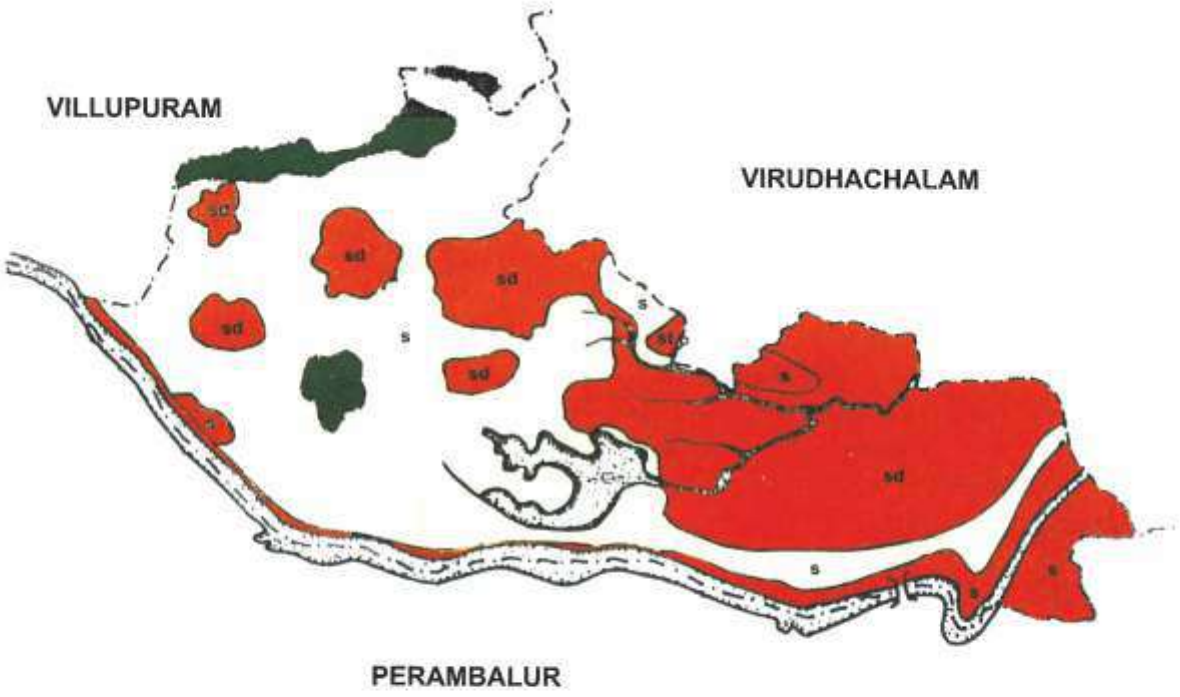
Sub Class

s - Soil limitation

t - Topographical limitation

d - Drainage hazard

LAND IRRIGABILITY
THITTAKUDI TALUK



REFERENCE

- DISTRICT BOUNDARY
- TALUK BOUNDARY
- FOREST BOUNDARY
- WATER BODY

LEGEND

CLASS

- Moderate Limitation
- Severe Limitation

SUB CLASS

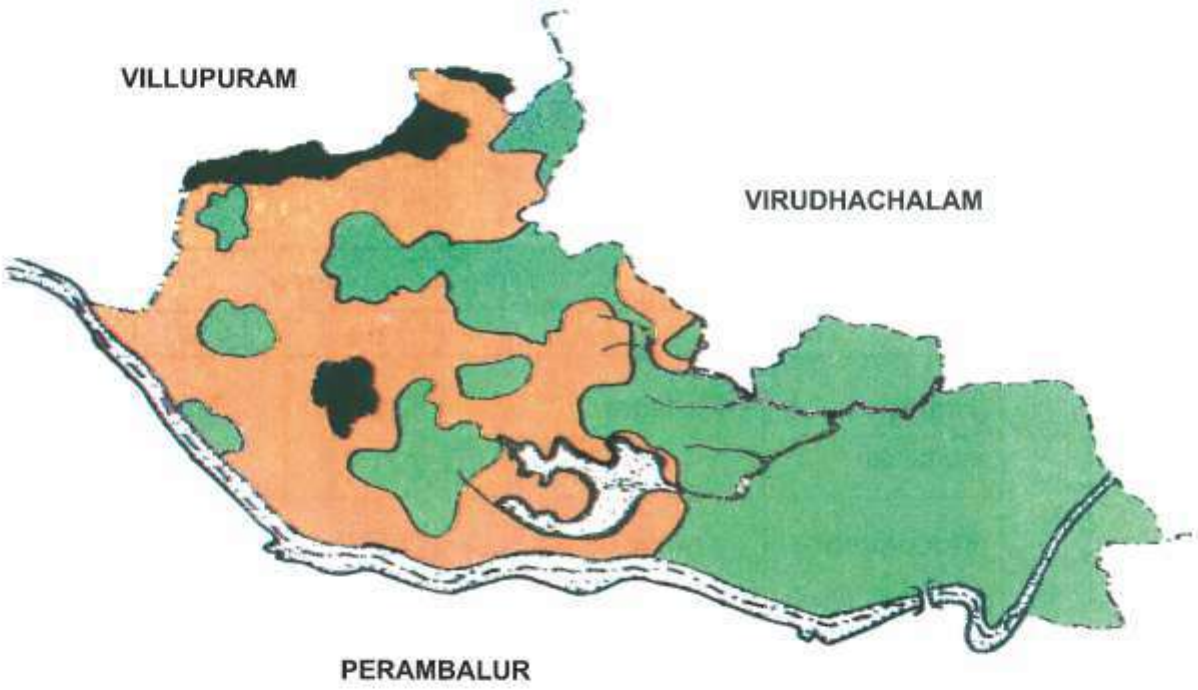
- s Soil Limitation
- t Topography
- d Drainage Hazard

SOIL PRODUCTIVITY

THITTAKUDI TALUK

Area (ha)	Productivity		Soil Series	Needs
	Class	Rating		
22168 37.14%	Poor	8 - 19	Lalapettai Vadathesasalur	Textural improvement drainage fertility management
29743 49.83%	Average	20-34	Padugai Arasanatham Madukkur Vanur Kondal	Drainage soil reclamation fertility management

SOIL PRODUCTIVITY
THITTAKUDI TALUK



REFERENCE

- DISTRICT BOUNDARY
- TALUK BOUNDARY
- FOREST BOUNDARY
- WATER BODY

LEGEND

- POOR
- AVERAGE

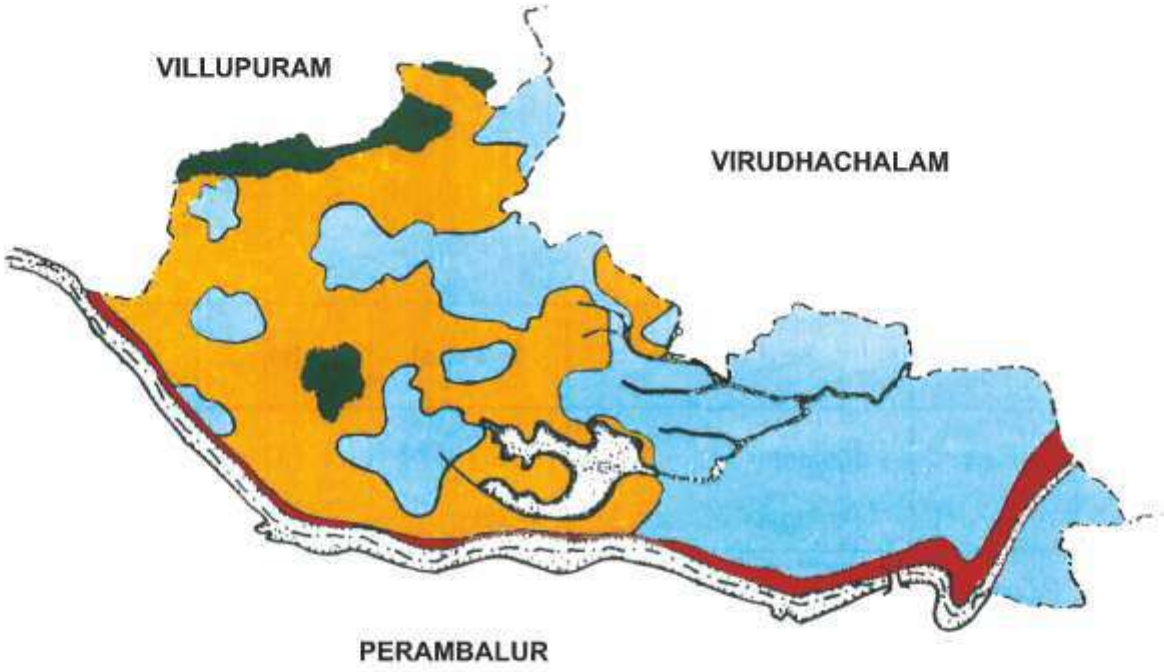
SUITABILITY FOR BANANA

THITTAKUDI TALUK

Class	Soil Series	Area	
		ha	%
Highly suitable	Padugai	3131	5.25
Modorately suitable	Kondal Madukkur Arasanatham Vanur	26612	44.59
Marginally suitable	Lalapettai Vadathesasalur	22168	37.14

SUITABILITY FOR BANANA

THITTAKUDI TALUK



REFERENCE

- DISTRICT BOUNDARY
- TALUK BOUNDARY
- FOREST BOUNDARY
- WATER BODY

LEGEND

- Highly Suited
- Moderately Suited
- Marginally Suited

SOILS

VIRUDHACHALAM TALUK

Soil Order	Soil Series	Symbol	ha	%
Entisols	Pachol	Pcl	1341	1.63
	Padugai	Pdg	7038	8.56
Inceptisols	Arasanatham	Anm	17428	21.19
Alfisols	Vadalapakkam	Vdm	16758	20.38
	Madukkur	Mdk	12267	14.91
	Vanur	Vnr	5228	6.36
Vertisols	Kondal	Knd	16758	20.37
	Water bodies etc.		5429	6.60
	TOTAL		**82247**	**100**

SOILS
VIRUDHACHALAM TALUK

VILLAGEWISE FERTILITY STATUS AND DOMINANT SOIL SERIES

VIRUDHACHALAM TALUK

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
KAMMAPURAM PANCHAYAT UNION				
1. Ammri	71	24	129	Mdk
2. Arasaguli	65	28	138	Vdm, Mdk
3. Chinnakuppankulam	65	28	149	Mdk, Vdm
4. C. Keeranur	62	29	165	
5. Devangudi	69	24	146	Mdk, Pdg
6. Dharmanallur	68	20	114	Mdk
7. Gangaikondan	65	25	156	Mdk, Vdm
8. Gopalapuram	64	32	138	Knd, Pdg
9. Irulakurichi	66	28	152	Vdm, Anm
10. Iruppu	62	40	160	Mdk
11. Kammapuram	68	22	145	Knd, Pdg
12. Karkudal	62	30	150	Mdk, Pdg
13. Karmanngudi	62	36	150	Mdk, Pdg
14. Kavanoor	71	22	140	Mdk, Pdg
15. Keelpadi	64	27	160	Mdk
16. Keelpalaiyur	63	27	155	Mdk, Pdg
17. Kiramangalam	68	20	110	Mdk, Pdg
18. Ko-Adanur	70	29	138	Mdk, Pdg
19. Kodumanur	69	32	142	Mdk
20. Kolliruppu	70	30	150	Vdm, Mdk
21. Ko. Mavidandal	74	28	140	Anm
22. Ko. Ponneri	73	30	146	Mdk

Village		Fertility Status (kg/ac)			Dominant Soil Series
		N	P	K	
23.	Kottagam	66	24	129	Mdk, Phl
24.	Kumarkurichi	69	24	146	Vdm
25.	Kottumulai	74	20	125	
26.	Kotteri	66	36	160	Vdm
27.	K. Puthur	70	21	72	Knd
28.	Kumaramangalam	68	32	145	Mdk, Pdg
29.	Managati	69	26	155	
30.	Mankollai	69	31	155	Vdm
31.	Marungur	54	26	145	Mdk, Pdg
32.	Melapalaiyur	68	30	144	Mdk, Pdg
33.	Melpappanampattu	70	30	140	Knd
34.	Mudapuli	58	31	150	Anm
35.	Nummudicholagam	79	27	148	Knd
36.	Nadiyapattu	64	30	148	Anm
37.	Neyveli	61	40	146	Knd, Mdk
38.	Oothangal	66	22	132	Mdk, Knd
39.	Othimedu	68	20	142	Pdg, Mdk
40.	Palakollai	60	32	142	Mdk, Anm
41.	Pazhyapattinam	72	32	148	Vdm
42.	Periyakappangulam	70	29	148	Vdm, Mdk
43.	Periyakurichi	60	30	170	Mdk
44.	Perundurai	69	21	156	Pdg, Mdk
45.	Peruvarapur	71	22	136	Mdk
46.	Saathamangalam	67	28	140	Vdm, Mdk
47.	Saathupadi	70	24	116	Knd, Mdk

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
48. Sepalanatham	62	38	175	Phl,Mdk.
49. Siruvampur	75	18	92	Anm.
50. S. Keeranur	67	28	142	-
51. Sothuvanam	60	34	148	-
52. Jholur	59	31	146	Mdk,Pdg.
53. T. Pavalangudi	75	24	132	
54. U. Adhanur	72	19	124	Mdk,Knd.
55. U. Agaram	64	26	144	Vdm,Mdk.
56. U. Kolapakkam	70	26	160	Knd,Anm.
57. U. Mangalam	61	40	140	-
58. Uyyakondaravi	70	29	140	Mdk.
59. Vadakkuvellur	74	25	132	Vdm,Knd.
60. Valliyam	58	34	164	Mdk,Pdg.
61. Vilukkapadi	74	20	102	Mdk.

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
VIRUDHACHALAM PANCHAYAT UNION				
1. Aladi	67	35	126	Vdm, Knd
2. Alanduraipattu	70	28	140	Knd
3. Allachikudi	62	13	316	Knd
4. Chinnaparur	70	20	140	Vdm
5. Chinnapandarakuppam	65	16	182	
6. Chinnathakurichi	65	28	142	Mdk
7. Chinnavadavadi	65	14	136	Vdm
8. Edaiyur	64	15	132	Knd
9. Enathimedu	60	19	132	Pdg, Mdk
10. Erumanur	67	13	140	Vdm, Mdk
11. Idaichithur	71	15	139	Anm
12. Illamangalam	68	26	128	Knd
13. Irusalakuppam	64	26	138	Vdm
14. Kachiperumalnatham	68	15	140	Pdg
15. Kachirayanatham	65	19	142	Vdm, Mdk
16. Kanadukattan	70	24	146	Vdm
17. Kandiyanakuppam	71	18	152	Vdm, Arm
18. Karanathan	65	17	126	Anm, Pcl
19. Karuveppilan Kurichi	63	20	140	Knd, Pdg
20. Kattiyanallur	67	17	140	Knd
21. Kattuparur	59	15	129	Ann
22. Kavanai	66	22	142	Vdm
23. Kirambur	58	13	126	Anm
24. Kodukkor	71	18	128	Knd
25. Komangalam	70	13	126	Mdk

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
26. Kovilanur	61	18	136	Pcl, Anm
27. Kollathankurichi	65	28	142	Pdg, Mdk
28. Kopurapuram	71	20	136	
29. Kuppanatham	65	20	142	
30. Ke. Pavelangudi	62	33	132	
31. M. Agaram	70	16	132	
32. Manallur	62	27	147	Pdg. Mdk.
33. Manavalanallur	58	28	134	Mdk, Pdg
34. Mathur	60	32	146	Vdm
35. Mugundanallur	68	20	138	Knd
36. Mugaparur	63	21	135	
37. Neehiyarpettai	60	24	144	Vdm, Pdg
38. Narmanam	66	24	138	
39. Padukalanatham	66	16	130	Anm
40. Pallipattu	64	15	126	Pcl, Vdm
41. Perembalur	67	20	126	Knd
42. Periavadavadi	71	20	129	Vdm
43. Peraliyur	66	25	138	Knd, Mdk
44. Poovanur	69	19	127	Anm, Vdm
45. Pudhanur	60	17	146	
46. Punthottam	61	24	148	Knd, Pdg
47. Puliyur	63	33	132	Knd
48. Rajendrappattinam	60	28	150	Mdk
49. Rubanarayananallur	66	16	141	Anm
50. Sattakudal (Malpatti)	66	25	124	Knd
51. Sattakudal (Keelpatti)	66	27	132	Knd

Village	Fertility Status (kg/ac)			Dominant Soil Series
	N	P	K	
52. Sathiyavadi	56	24	144	Knd
53. Sembalakurichi	70	18	129	Pdg
54. Siruvambur	68	14	140	Anm
55. Sitherikuppam	56	28	142	
56. Therukuvadakuputhur	72	19	132	Mdk
57. T. Mavidantal	67	14	138	
58. Toravalur	65	14	144	Mdk, Knd
59. Vannankudi Kadu	66	17	126	Mdk
60. Vayalur	68	20	124	
61. Vettagudi	64	26	142	Mdk
62. Visalathur	67	17	134	Anm
63. Virudhachalam	61	11	142	Pcl

LAND CAPABILITY

VIRUDHACHALAM TALUK

Area (ha)	Land capability classification	Soil Series	Limitation
52821 64.22%	IIs	Padugai Madukkur Vadalapakkam Kondal	Texture drainage
17428 21.19%	IIsw	Arasanatham	Texture wetness
5228 6.36%	IIIs	Vanur	Texture drainage
1341 1.63%	IIIes	Pachol	Erosion and run off

Class

II Good cultivable lands that have few limitations for sustained use under agriculture

III Moderately good cultivable lands that have severe limitations for sustained use under agriculture

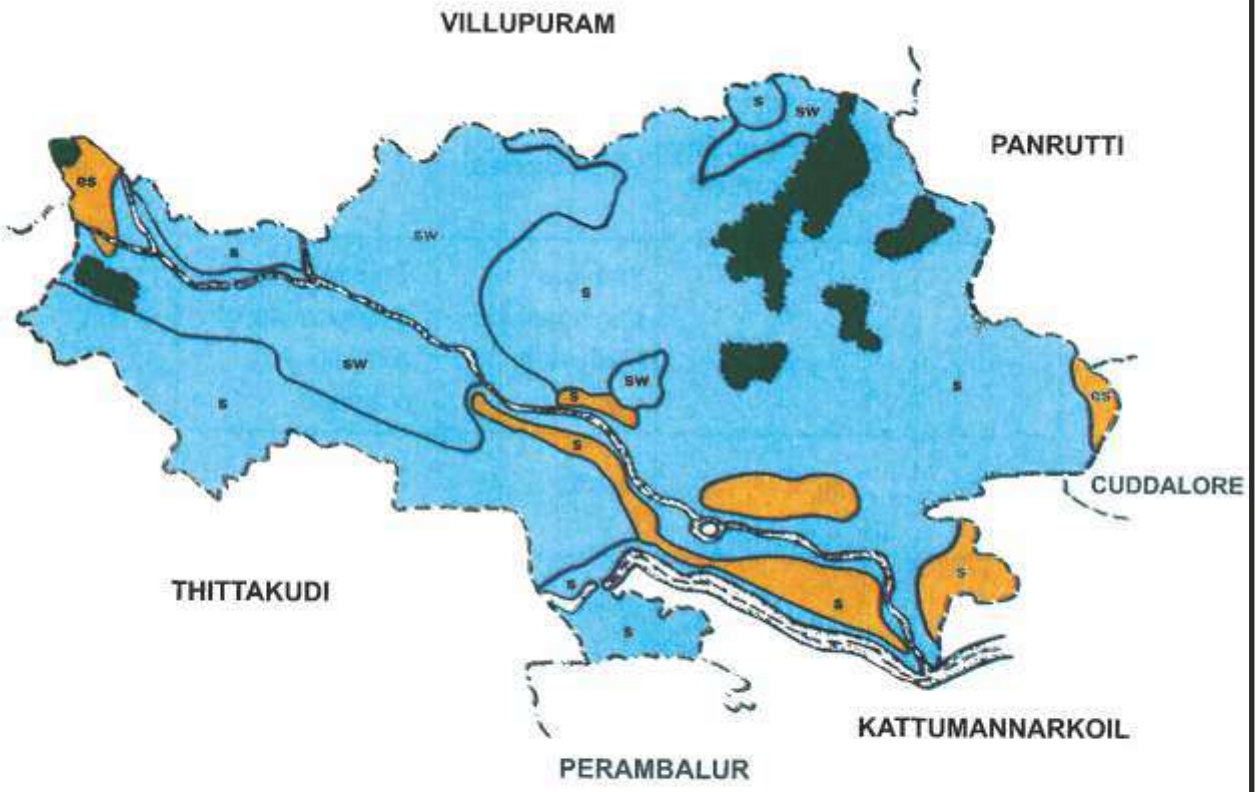
Subclass

s - Root zone limitation

e - Erosion and run off

w - Wetness

LAND CAPABILITY
VIRUDHACHALAM TALUK



LEGEND

CLASS

- Good Cultivable Land
- Moderately Good Cultivable Land

SUB CLASS

- s Soil Limitation
- e Erosion and Runoff
- w Wetness

REFERENCE

- DISTRICT BOUNDARY
- TALUK BOUNDARY
- FOREST BOUNDARY
- WATER BODY

LAND IRRIGABILITY

VIRUDHACHALAM TALUK

Area (ha)	Land irrigability classification	Soil Series	Limitation
36063 43.85%	2 s	Padugai Vadalapakkam Madukkur	Texture development of alkalinity drainage
16758 20.37%	2 sd	Kondal	Texture drainage
22656 27.55%	3 s Vanur	Arasanatham	Texture drainage alkalinity development
1341 1.63%	3 st	Pachol	Topography erosion and run off

Class

2 - Lands that have moderate limitations for sustained use under irrigation.

3 - Lands that have severe limitations for sustained use under irrigation.

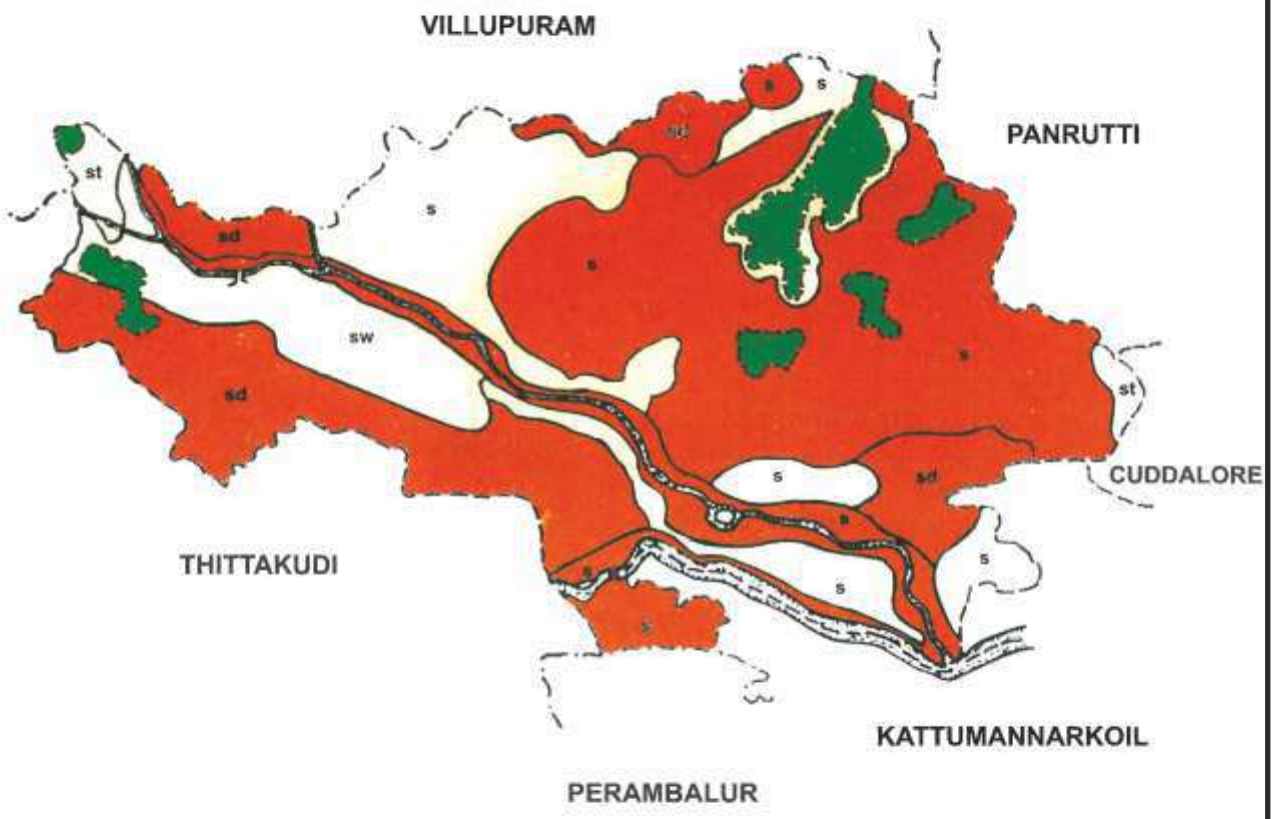
Sub Class

s - Soil limitation

t - Topographical limitation

d - Drainage hazard

LAND IRRIGABILITY
VIRUDHACHALAM TALUK



LEGEND

CLASS

- Moderate Limitation
- Severe Limitation

SUB CLASS

- s — Soil Limitation
- t — Topography
- d — Drainage Hazard

REFERENCE

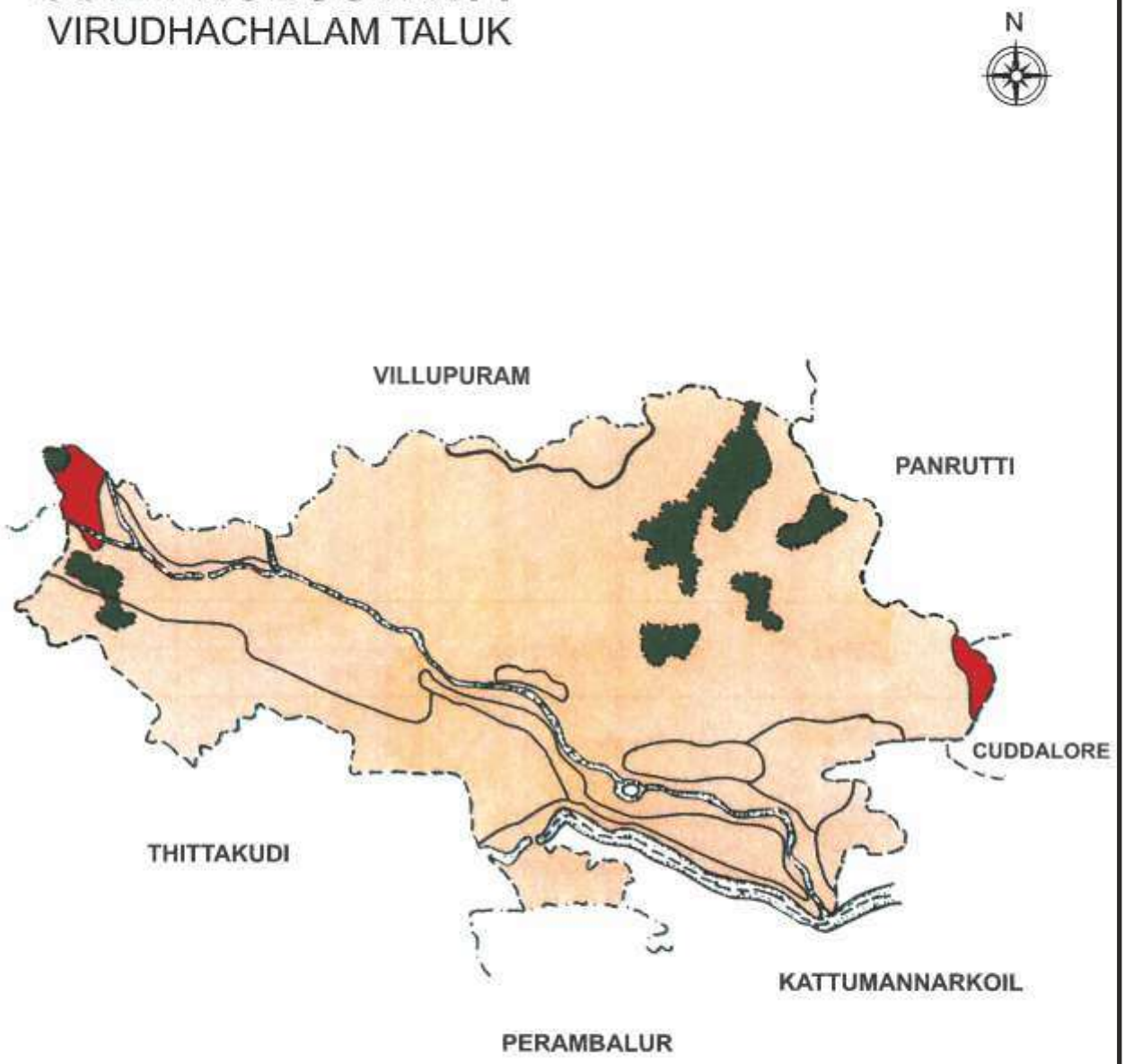
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- FOREST BOUNDARY
- WATER BODY

SOIL PRODUCTIVITY

VIRUDHACHALAM TALUK

Area (ha)	Productivity		Soil Series	Needs
	Class	Rating		
1341 1.63%	Poor	8 - 19	Pachol Vadathesasalur	Soil conservation fertility management
75477 91.77%	Average	20 - 34	Padugai Arasanatham Vadalapakkam Madukkur Vanur Kondal	Soil reclamation drainage fertility management

SOIL PRODUCTIVITY
VIRUDHACHALAM TALUK



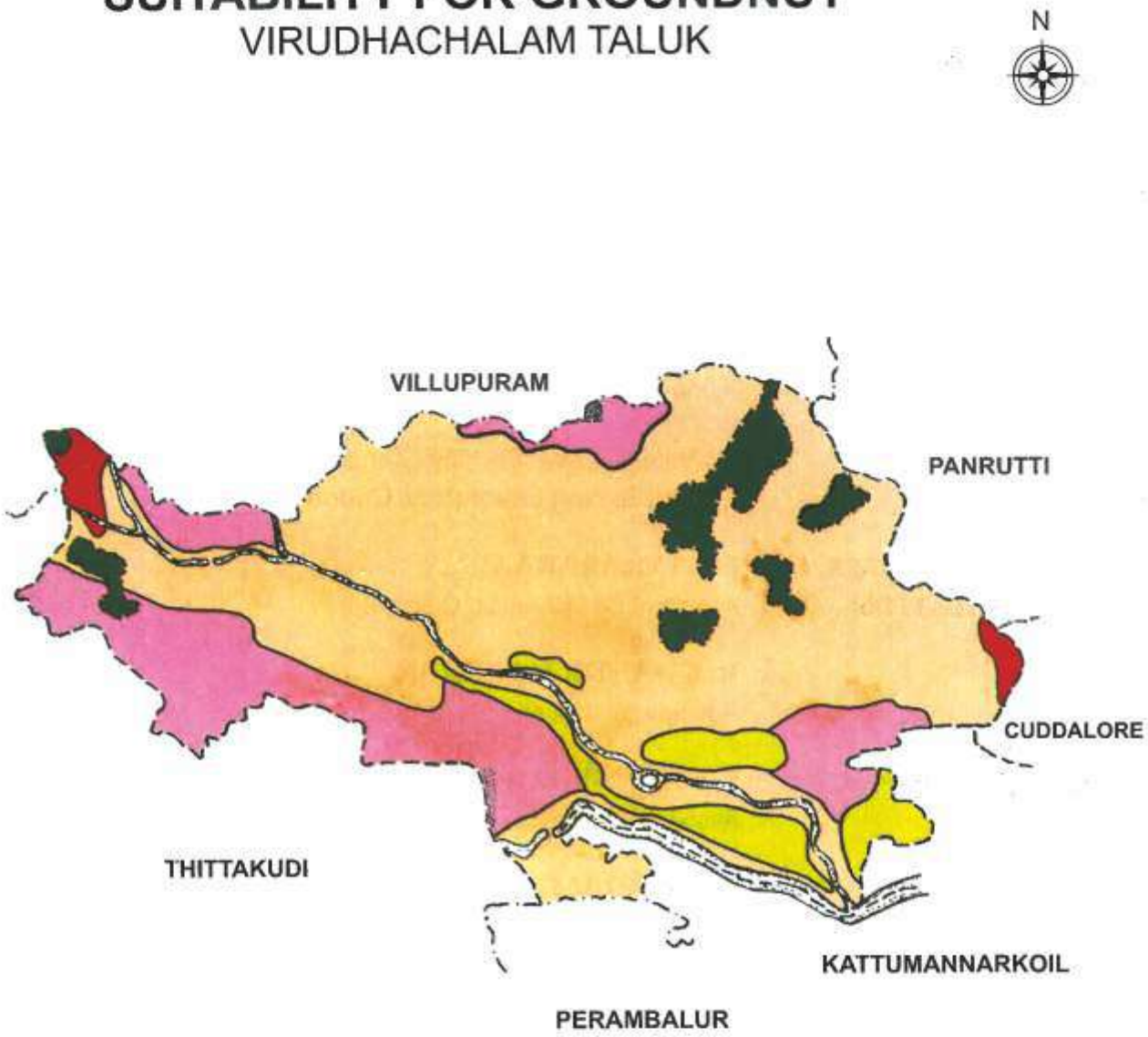
SUITABILITY FOR GROUNDNUT

VIRUDHACHALAM TALUK

Class	Soil Series	Area	
		ha	%
Highly suitable	Pachol	1341	1.63
Moderately suitable	Arasanatham Vadalapakkam Madukkur Padugai	53491	65.04
Marginally suitable	Vanur	5228	6.36
Temporarity not suitable	Kondal	16758	20.37

SUITABILITY FOR GROUNDNUT

VIRUDHACHALAM TALUK



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